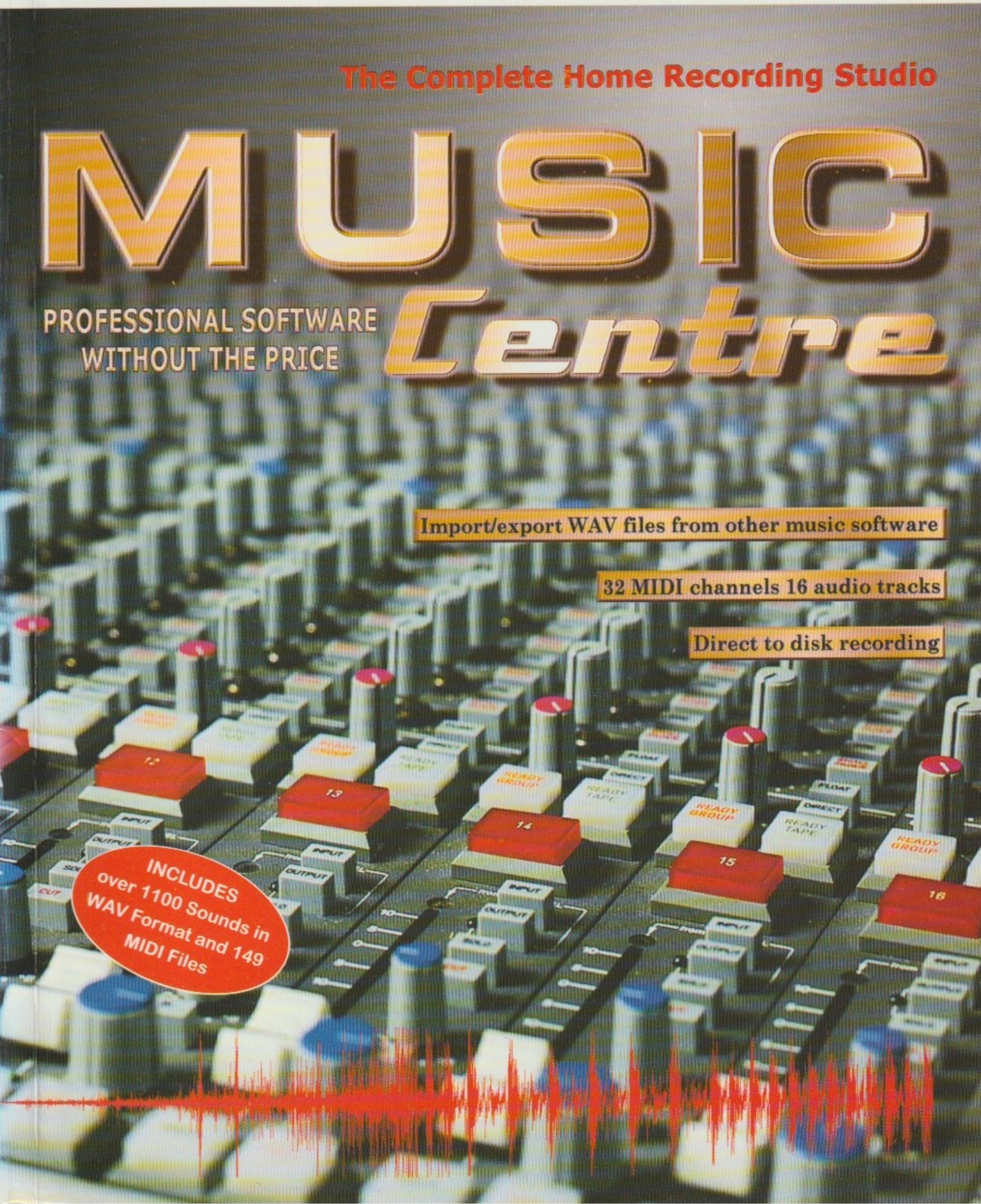
DATA BECKER

The Complete Home Recording Studio

MUSIC Centre

PROFESSIONAL SOFTWARE
WITHOUT THE PRICE



Import/export WAV files from other music software

32 MIDI channels 16 audio tracks

Direct to disk recording

INCLUDES
over 1100 Sounds in
WAV Format and 149
MIDI Files

DATA BECKER

MUSIC Centre

Author: M3C Systemtechnic, Dirk Weippert

Copyright © 1999 by: DATA BECKER GmbH & Co.KG, Merowingerstr. 30, D-40223, Düsseldorf

Copyright © 1999 by: DATA PLAYER Ltd, Unit 9 Bentley Industrial Centre, Bentley, Farnham, Surrey, GU10 5NJ, United Kingdom.

Published by: DATA PLAYER Ltd, Unit 9 Bentley Industrial Centre, Bentley, Farnham, Surrey, GU10 5NJ, United Kingdom.

Program Author: CANAM & M3C Systemtechnik GmbH
Sounds by MASTERBITS GmbH

Cover Layout: Audrey Coleman

Manual: Neil Coles

Testing: Neil Coles

Manual Translation: Christina Diron
Bernd Moore

Printed in the United Kingdom – January 1999

ISBN: 1 86401 133 9

Licence Agreement

Important: The enclosed program is Licensed by DATA BECKER to customers for their use only on the terms set forth below. Opening this package or use of the program indicates your acceptance of these terms.

Licence: DATA BECKER hereby agrees to grant you a non-exclusive Licence to use the enclosed DATA BECKER program (the "Program") subject to the terms and restrictions set forth in this Licence Agreement. If you do not agree with the terms of this Agreement, promptly return the disks and/or CD with the accompanying items to DATA BECKER for a full refund.

Copyright: The Program and its documentation are protected by US copyright law and international treaty provisions. You may not copy or otherwise reproduce any part of the Program or its documentation, except that you may load the Program into a computer as an essential step in executing the Program on a single computer.

Restrictions on Use and Transfer: The original and any back-up copies of the Program and its documentation are to be used only in connection with a single computer. You may physically transfer the Program from one computer to another, provided that the Program is used in connection with only one computer at a time. You may not transfer the Program electronically from one computer to another over a network. You may not distribute copies of the Program or its documentation to others. You may transfer this Licence together with the original and all back-up copies of the Program and its documentation, provided that the transferee completes and returns to DATA BECKER a Registration Card and agrees to be bound by the terms of this Licence Agreement. Neither the Program nor its documentation may be modified or translated without written permission from DATA BECKER. You may not use, copy, modify, or transfer the Program, or any copy, modification or merged portion, in whole or in part, except as expressly provided for in the Licence.

Exclusion of Warranty; Limitation of Liability; Limited Diskette Warranty:

The program and its documentation is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, the IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. The entire risk as to the results and performance of the program is assumed by you. Should the Program or its documentation prove defective, you (and not DATA BECKER or its dealers) assume the entire cost of all necessary servicing, repair, or correction.

Neither DATA BECKER nor anyone else who has been involved in the creation, production, or delivery of this Program and its documentation shall be liable for any direct, indirect, consequential, or incidental damages (including, without limitation, damages from the loss of business profits, business interruptions, loss of business information, or any pecuniary loss) arising out of the use of or inability to use such products, even if DATA BECKER has been advised of the possibility of such damages or claim.

DATA BECKER warrants the enclosed disk or CD (but not the Program contained thereon) to be free of defects in materials and workmanship under normal use for 30 days after purchase. During the 30-day period, you may return a defective diskette or CD to an Authorised DATA BECKER Dealer, and it will be replaced without charge unless the diskette or CD is damaged by accident or misuse. Replacement of a diskette or CD is your sole remedy in the event of a defect. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Product Improvements: DATA BECKER reserves the right to make corrections or improvements to the Program and its documentation and to the related diskettes and/or CD at any time without notice and with no responsibility to provide these changes to purchasers of earlier versions of such products.

Term: This Licence is effective until terminated. You may terminate it by destroying the Program and its documentation and all copies thereof. This Licence will also terminate if you fail to comply with any term or Agreement. You agree upon such termination to destroy all copies of the Program and its documentation.

Welcome to the Data Becker Music Centre

Using this manual, the program and the samples on the CD's provided, you will have everything you need to produce your own music on your PC.

With just a little talent you can combine the DATA BECKER Music Centre WAVE files and synthesised sounds as freely as you like. You can play your own music directly in to the program; either with the use of a standard MIDI keyboard or with your PC keyboard – either will do. Create a pounding drumbeat and then record your own rap song. The real time effects generators in the Music Centre are waiting to add even more life your songs and compositions, by applying hall, chorus and many other realistic effects.

We hope this program is precisely the tool that you have been waiting for.

Berlin, November 1998.

The authors

Contents

Installation and start 11

- **The Installation Assistant 11**
- **What is the Music Centre? 13**
- **System Requirements 14**
- **Use of the Handbook 14**
  - Get the Groove – the Music Centre Quick Start 14
  - Quick Help 15
  - Touch Base – Music Centre Reference 15
  - The X Files 15
  - The Tutorial 15

Get the groove – The Music Centre Quick Start 17

- **Starting the Music Centre 18**
- **Setting the Sound Card 18**
- **Importing a midi file 20**
- **The Program Interface 21**
  - The Control Window 21
  - The Tracks window 21
  - The Toolbox 22
  - The Track Status Area 24
- **When you work with the Audio elements 25**
  - Importing an Audio element 25
- **Editing an Audio element 26**
- **Positioning an Audio element 27**
- **Copying and inserting an Audio element 27**
- **Deleting an Audio element 28**
- **Using Effects 29**
- **How to create your own songs 29**

Setting the Tempo and Beat 30
Setting the Click/Intro Counter 30
Establishing the active track and tone 30

How to make an Audio recording 32

How to record from a CD 32

Quick Help 35

Everything sounds like Grandma's Gramophone 35

Problems when cutting and copying 36

Working on Audio files 36

Displaying the Sound Name 37

The Tracks are not being played 37

No sounds from the MIDI Keyboard 38

All of the MIDI patterns from the CD sound like a piano 38

Insertion of notes in the Grid Window 38

Keyboard shortcuts 38

Touch Base – The Music Centre Reference 41

File Menu 41

Edit Menu 49

Tracks Menu 55

Options Menu 67

Control Menu 85

Cues Menu 87

Functions Menu 88

Control window 98

Tracks window 102

Mixing desk window 107

Events window 110
Cues window 112
Keyboard window 113
Juke box window 114
Score window 115
Grid window 116
Controllers window 118
Master Mixer Window 119
The Wave Editor - Modify Audio Elements 119

The X-Files 125

The MIDI standard 125
MIDI connections 125
MIDI channels 125
MIDI signals 126
MIDI implementation charts 127
MIDI GS format (general MIDI) 128

Index 131

Installation and start

In order to install the DATA BECKER Music Centre, you need to place the CD (1 of 2) supplied with the package, in to your CD ROM drive. If your PC is set to automatically run a CD when it is placed into the drive, the installation will begin within a few seconds.

If this doesn't happen, click the *Start* button on the task bar, then click on *Run* and then enter the drive name of your CD ROM drive and then the file name, "Setup.exe", in to the field provided. Your entry should be similar to the example bellow:

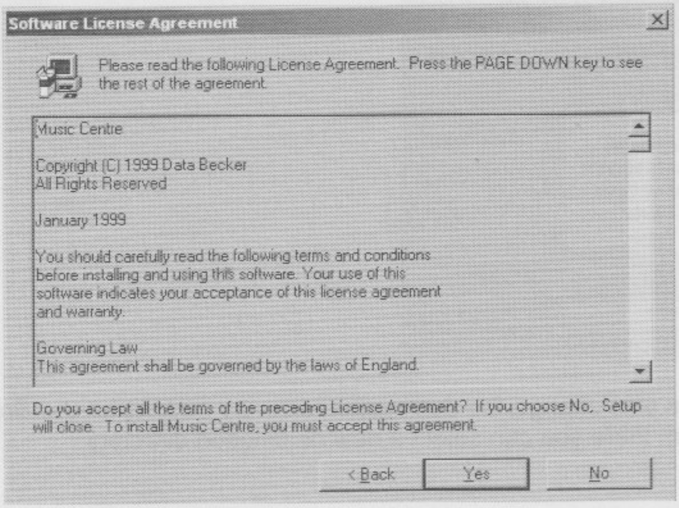
```
D:\Setup.exe
```

Click on the *OK* button and then Click on the *Install program* option when it appears and the Install Assistant will then start. You can also locate the *Setup.exe* file by using the *Browse* function.

The Installation Assistant

Once the Installation Assistant is started, the welcome dialogue box will appear.

You may proceed with the installation by clicking on the *Next* button in the usual manner.



Please read the following License Agreement. Press the PAGE DOWN key to see the rest of the agreement.

Music Centre

Copyright (C) 1999 Data Becker
All Rights Reserved

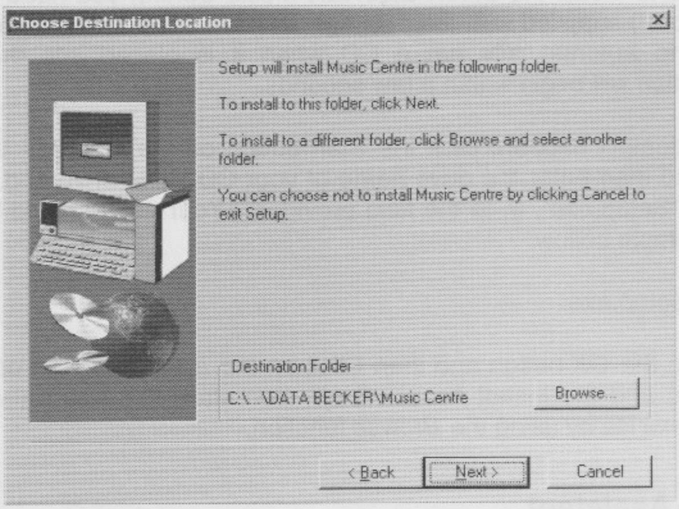
January 1999

You should carefully read the following terms and conditions before installing and using this software. Your use of this software indicates your acceptance of this license agreement and warranty.

Governing Law
This agreement shall be governed by the laws of England.

Do you accept all the terms of the preceding License Agreement? If you choose No, Setup will close. To install Music Centre, you must accept this agreement.

You should carefully read the software licence agreement through. Once you are happy with the user conditions, you should click on the *Yes* button.



Choose Destination Location

Setup will install Music Centre in the following folder.

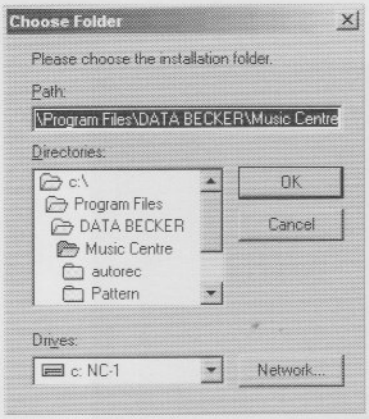
To install to this folder, click Next.

To install to a different folder, click Browse and select another folder.

You can choose not to install Music Centre by clicking Cancel to exit Setup.

Destination Folder: C:\...\DATA BECKER\Music Centre

In the following part of the installation you will be able to determine the destination directory for the installation of the program, and where all the files are to be copied. The default directory that will appear, will be *C:\Program Files\DATA BECKER\Music Centre.*



Choose Folder

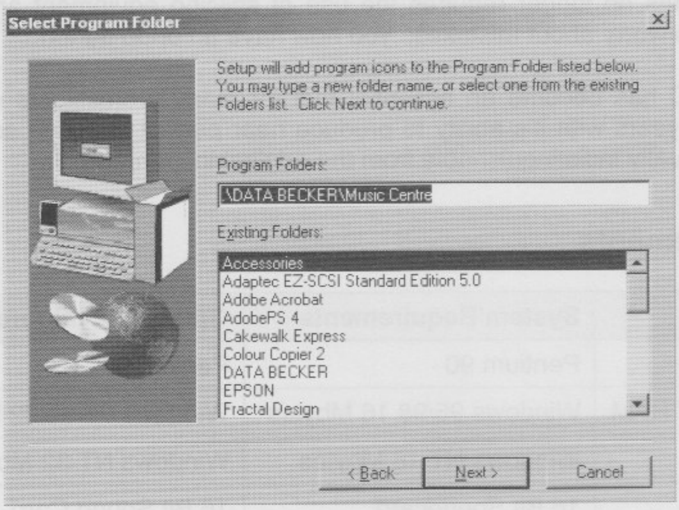
Please choose the installation folder.

Path: \Program Files\DATA BECKER\Music Centre

Directories:
- c:\
  - Program Files
    - DATA BECKER
      - Music Centre
        - autorec
        - Pattern

Drives: c: NC-1

You can also change the destination folder by clicking on the *Browse* button, and from there you can select a new destination directory.



Select Program Folder

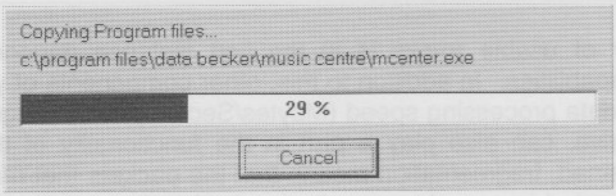
Setup will add program icons to the Program Folder listed below. You may type a new folder name, or select one from the existing Folders list. Click Next to continue.

Program Folders:

\DATA BECKER\Music Centre

Existing Folders:

Once you have selected the program group from the following dialogue box, the files will be copied to your hard drive.



Copying Program files...

c:\program files\data becker\music centre\mcenter.exe

29 %

Once the installation of the Music Centre is completed, you are advised to restart your computer in order that Windows can acknowledge the new settings created by the installation.

Now you will be able to start the program by going through the Start menu Programs / DATA BECKER / Music Centre / Music Centre.

What is the Music Centre?

The DATA BECKER Music Centre is a digital mixing desk, audio recorder and audio/MIDI sequencer all rolled in to one. Using this software with a moderate hardware set-up, you can exploit your creativity in many ways.

Using a *digital recording studio*, sound is stored in digital form where it is possible to edit, or duplicate the original recording without any loss of clarity. A cassette recorder uses tape which deteriorates with age and use and the sound becomes increasingly muffled, but the playback of a digital recording remains as if it has only just been recorded. Cutting and pasting of musical fragments no longer requires the use of splicing equipment and you don't need to worry about mistakes: you now have an undo button.

The PC has become an essential tool for many professional musicians in recent years with it's ability to produce near perfect sampled sounds which are virtually indistinguishable from the original instrument.

System Requirements

	System Requirements	Optimal Configuration
Processor	Pentium 90	Pentium II
Operating system / RAM	Windows 95/98 16 Mbytes	Windows 95/98 32 Mbytes
	Windows NT 16 Mbytes	Windows NT 32 Mbytes
Sound System	16 Bit Soundcard	16 Bit Sound Card
CD ROM Drive	4 Speed	8 Speed
Monitor Resolution	640 * 480 / 256 colors	800 * 600 / 32,000 colors

The number of usable tracks is in the first instance dependent on the processor capabilities. In addition to this, other components of your system, such as the data processing speed (Mbytes/Second) or the fragmentation of your hard drive, can also play a part in the functionality of the program. (Briefly explained, fragmentation means that the packets that make up a file are not all located in one place on the hard drive, but the file is saved and the packets are distributed around the hard drive. This can lead to the playback of audio files being segmented, as the read/write head has to search for the varying packets and reposition itself accordingly around the drive). You may also find that the type and structure of the audio material (size and length) can influence the play back.

Use of the Handbook

If you are the type of PC user that wants to find out what the software is actually capable of as quickly as possible, you won't want to sit down and read all the way through this handbook before you start to play, so we have designed this first section especially for you:

Get the Groove – the Music Centre Quick Start

In this section we will explain how the program interface operates, as well as some of the basic technicalities. If, despite the quick start help, you should still have a few problems, then we recommend that you take a look at the two sections that follow on from this.

Quick Help

Here we have tried to work on the particular starting problems that can arise during the operation of the program.

We recommend that you read the third part of this handbook after you have tried the sample tunes and become familiar with the program interface.

Touch Base – Music Centre Reference

This contains the descriptions of the large array of menu commands and windows found in the DATA BECKER Music Centre. For those of you that want to be more involved within the depths of digital technology, then you will find this appendix of great interest.

The X Files

This is where the secrets of the MIDI file format are explained. This section is designed for those users that have more professional ambitions.

The Tutorial

Located on DATA BECKER Music Centre CD 2 in the Folder named "Tutorial", you will find a rolling demonstration file which has been designed to help demonstrate every step in the process of creating a new sequence.

To view the demonstration, double click on the file "Tutorial.exe". The buttons located at the base of the demonstration window enable you to control the flow of events.

The Audio files used for the demonstration are located on CD 1 in the Folder named Examples\151bmp.

Get the groove – The Music Centre Quick Start

You will find hundreds of first class WAVE samples supplied with the CD that comes with this package: these range from expressive singing vocals to drum loops to the ethnic sounds of the far east. In addition to these, the CD also contains over 100 MIDI files and patterns with which you can create your own masterpieces.

When this handbook refers to "music pieces", "patterns" and audio files, then you will always be able to recognise these in the DATA BECKER Music Centre as they will be shown as colorful squares, which can be moved and worked on from a montage bar.

When MIDI files are mentioned, then the actual sounds themselves will not actually be referred to. MIDI is a general standard format for the swapping of files between electronic musical instruments (this is explained more on the "X files" chapter). You will only find references to digital information in the DATA BECKER Music Centre, like how long a note is and with what instrument (Piano, Guitar, Strings, Bass, etc) they are being played in. For the actual sound that is created (i.e. that which you actually hear) you will find that this is dependent on the sound card capabilities of the (MIDI) synthesiser that you have connected. This means that you can play so called MIDI files from any synthesiser with a MIDI connector, even if the sound quality of your keyboard is different.

Music Centre is not limited to working with MIDI files, audio files (the so-called WAV files) can be placed on the montage bar without any problem and built in to your songs. If you are working with audio files, then it is as well to remember that the Music Centre does not change the source of the audio file. If you place a WAV file in to your mix, then you will be able to select the exact part that you want to use. The rest of the file will not be cut off, but rather, it remains in the background ready for you to use at any time. The Music Centre will save the file on to the hard drive as a temporary file, in order to speed up access to the file and the parts of it that you may want. If you want to work on the actual WAV file, then you can start an external sound manipulation program from the DATA BECKER Music Centre.

Further explanation regarding the program information can be found in the "Touch Base – Music Centre Reference" chapter later on in this handbook. This section will concentrate on explaining the functions of the more important items.

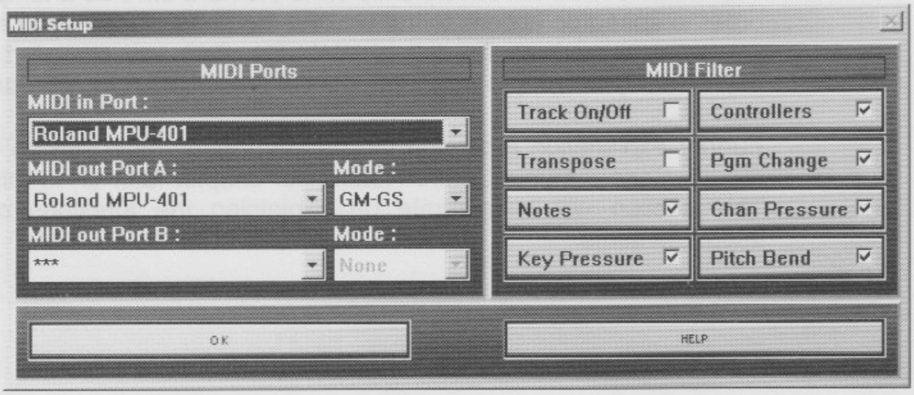
Starting the Music Centre

Once you have completed the installation of the program and have started the Music Centre, the initial splash screen will appear and then disappear within a few seconds. You can also click on this splash screen in order to gain immediate access to the program.

Before you start loading any MIDI or audio files in to the program, you will first need to ensure that the Music Centre knows the sound card that your system has installed.

Setting the Sound Card

Once the program has started you will need to select the *Options/MIDI set-up* menu. From the dialogue box that appears, you will need to select the sound card that you are using. If you should have more than one sound card, or sound transmitter, installed in your system, then you should select the one with which you can use both of the MIDI ports (*A/B*). With the MIDI standard there are 16 so-called channels allocated. Each of these channels can be "played" by a different machine: therefor you can, for example, have track 8 play on your first sound card (Port A) and tracks 1 to 5 play on your second sound card (if you have two installed).



MIDI in Port : Roland MPU-401

MIDI out Port A : Roland MPU-401 Mode : GM-GS

MIDI out Port B : *** Mode : None

Track On/Off ☐

Controllers ☑

Transpose ☐

Pgm Change ☑

Notes ☑

Chan Pressure ☑

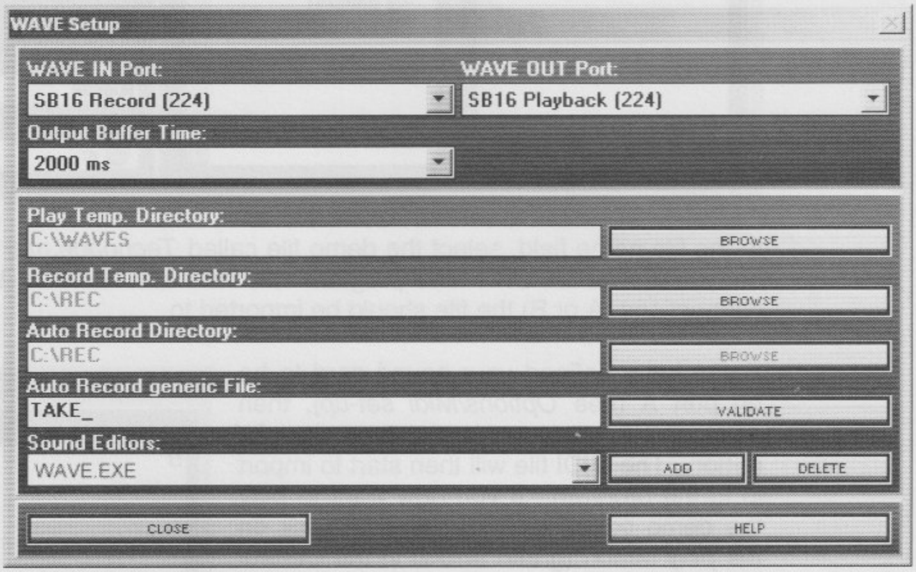
Key Pressure ☑

Pitch Bend ☑

If you have a GM/GS or XG compatible (these are extensions to the MIDI standard) sound card (you can find this out form the relevant hardware documents that were supplied with your sound card), then you need to highlight the required option in the *mode* field and then finally click on the *OK* button.

You will also need to set your soundcard for the audio part of the program. For this you need to perform the "WAVE set-up" through the *Options/WAVE set-up* menu. In the dialogue box that appears, you will need to select the valid audio driver for your sound card(s) under the *WAVE-In-Port*, as well as under the *WAVE-Out Port*.

TIP: You can press the key combination [Ctrl]+[F1] at any time, to call up the "Online Help". With the Online Help you will receive detailed information regarding the relevant dialogue box and/or the relevant window open on screen.



WAVE IN Port: SB16 Record (224)

WAVE OUT Port: SB16 Playback (224)

Output Buffer Time: 2000 ms

Play Temp. Directory: C:\WAVES

Record Temp. Directory: C:\REC

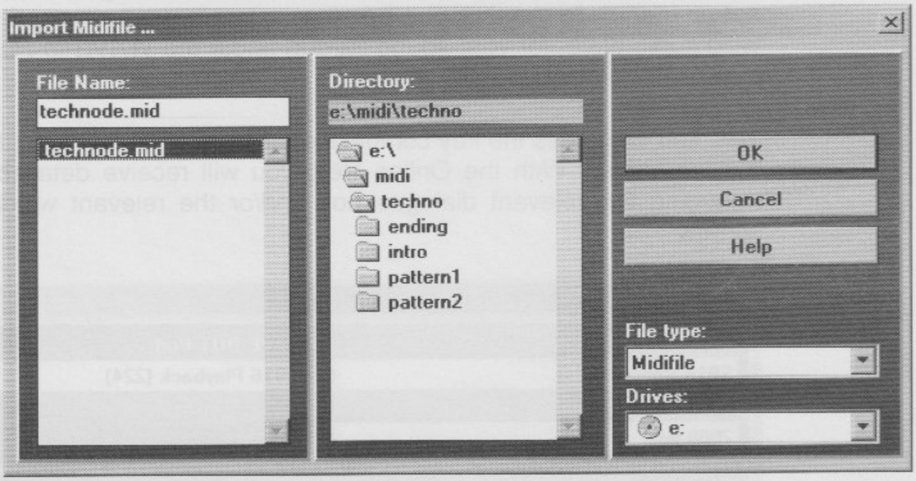
Auto Record Directory: C:\REC

Auto Record generic File: TAKE_

Sound Editors: WAVE.EXE

Importing a midi file

Now for the very impatient: If, once you have completed the installation and set-up of your sound card, you want to have a quick impression of what the Music Centre sounds like, then you need to select *Import Midifile* from the *Files* menu. This will open the following dialogue box:



Import Midifile ...

File Name: technode.mid

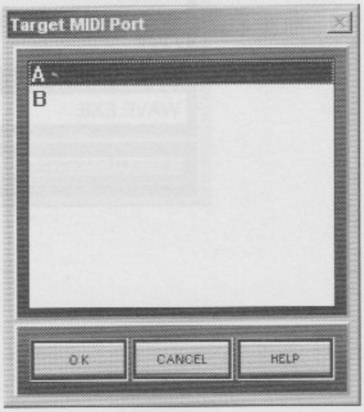
Directory: e:\midi\techno

File type: Midifile

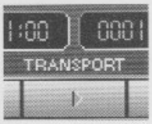
Drives: e:

In the file name field, select the demo file called *Technode.mid* from the CD and then click on *OK*. The program will then ask which of the two midi connections (A or B) the file should be imported to.

If you have defined your sound card to be on port A (see *Options/Midi set-up*), then you need to click on A and then the *OK* button. The MIDI file will then start to import in to the program. If you now want to play the demo song, you only need to click on the *play* button (green arrow) in the Control window or press the [spacebar].



Target MIDI Port



You can stop the playback at any time by clicking on the blue Stop icon, or simply pressing the [spacebar] once more.

If you want to listen to the whole thing once more then you need to click on the *Fast Rewind* icon.

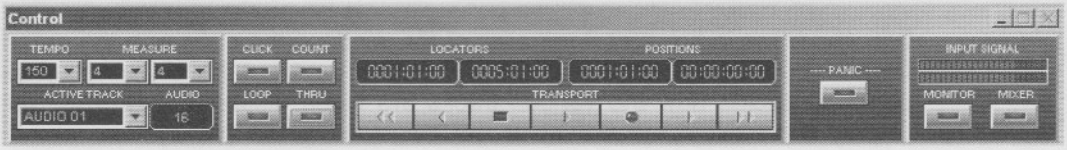
... Or you can press the [0] key on the number pad to the right of your keyboard and then click on the *Play* button again. or press the [spacebar] once more.

Now that the session is in full swing, we will perform a crash course on how to operate the program interface.

The Program Interface

The standard interface of the Music Centre consists of the Control window, the Tracks window and the Mixer desk window.

The Control Window



TEMPO 150

MEASURE 4 4

ACTIVE TRACK AUDIO 01

AUDIO 16

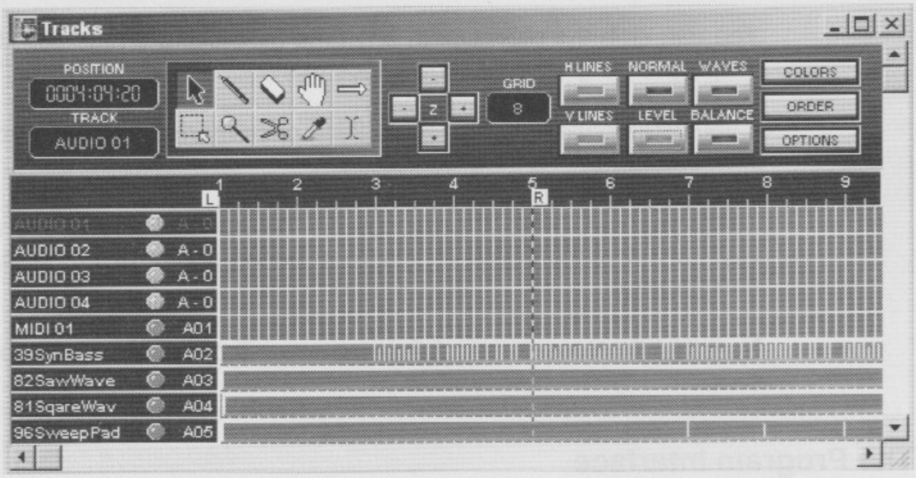
LOCATORS 0001:01:00 0005:01:00

POSITIONS 0001:01:00 00:00:00:00

This window serves as the display and control of the transport function of the sequencer (forwards, backwards, replay, stop, etc.) as well as the settings for certain global program parameters (speed, time, etc.).

The Tracks window

The Tracks window serves to display your work on the screen. The MIDI and audio elements are displayed on the so-called *montage bar* with blue and/or red squares.



On the upper left of the tracks window you will see the current position of the mouse pointer indicated, next to this there is a tool box, which will be explained in greater detail later on. With the *Zoom* icon next to it, you can set the size of the view (this is useful when you want to arrange parts of your music and need to zoom in for precise location).

With the icons in the right hand area of the window (the ones with the green lamps) you can switch the grid lines on and off (horizontal and vertical). You can also decide how the various tracks are to be displayed. *Normal*, will display the track name (MIDI) or the audio file name (WAV). *Level,* will provide an approximate indication of the volume. *Waves* will show peaks and lows of an Audio track and *Balance* will show the stereo position for Audio tracks.

The Toolbox

In the Tracks window, as with all of the windows in the Music Centre (Grid, Score. Controllers) you will always find a Toolbox with the various tools required for the job. Here is a brief overview of the tools used in the Tracks window:

The Set Tool (the mouse pointer). If you click on any point of the montage bar with the left mouse button, then the screen cursor will automatically move to this position, i.e. the play will jump to the position on the bar that you clicked on to. This function can be used during the playback of a track.

If you select this function in the *Score* and *Grid* window, then it is possible change the parameters of the element that you have clicked on through the use of a dialogue box.

The Add Tool (the pencil icon). With this, you can insert audio elements in to a specific location. When using this tool, you may find it useful to zoom in (enlarge) the editing grid to give you a more precision. When you click on the grid with this tool, a dialogue box will open and you will be able to select the WAVE file that you want to insert.

The Delete Tool (the eraser icon). One click with the left mouse button will delete the element over which the mouse is currently positioned.

The Move Tool (the hand icon). With a left click on the required item, you will be able to move this item horizontally (position) and vertically (track). This only works between tracks that are of a similar nature, i.e. MIDI to MIDI, or audio to audio. If you should select one or more items to be moved and then press the [ctrl] key at the same time, then the item(s) selected will be automatically copied and then pasted in to the new position. This is the quickest and easiest way to duplicate audio samples and copy them in to other parts of your work.

The Size Tool. With this tool selected, it is possible to use the left mouse button to lengthen or shorten the play time of a MIDI note or crop the length of an audio element.

The Frame Tool. When you have this tool selected, you can select one or more items in one hit by clicking and dragging the mouse over the desired items (MIDI and audio).

The Edit Tool (the magnifying glass icon). If you click on an element while this tool is selected, then this will open an editing window. The editing window is different for MIDI and audio elements.

The Scissors Tool. When this tool is selected you will be able to cut an element with the left mouse button by placing the cursor at the desired location. If the grid setting is to imprecise for you, then you need to increase the value in the *Grid* field to the right of the zoom icon.

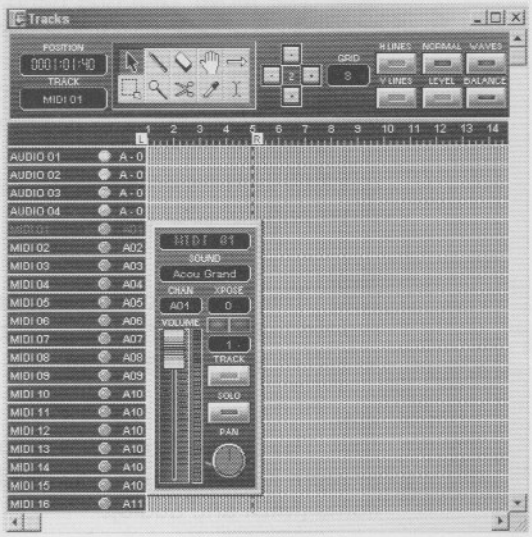
The Glue Tool (the pipette icon). This tool serves to combine two MIDI elements in to one element. Simply click on one element in order to connect it to the following element.

The Limit Tool (the brackets icon). With this tool you will position the locators. With the left mouse button you will position the left locator. With the right mouse button you will position the right locator. As many of the working functions usually operate between locators, you should find that you use this tool more often than any of the others.

The Track Status Area

The track status area will show you the general status of a track:

1. The name of the track (i.e. Piano or Bass)
2. The status of the track (on/off) through the colored lamp. If it is lit, then it indicates that the track is switched on. For MIDI tracks the lamp is green and for audio tracks the lamp is yellow.
3. The output port and the channel allocated to the MIDI track (A1-16 or B17-32) or (A1) for mono audio tracks or (A2) for stereo audio tracks.



If you click on the track status area with the right mouse button, you will open the relevant mixer window for that track.

The Mixer Window

The mixer window will display and control the settings for each track in the composition in real time (as with a traditional mixer desk). Next to the volume slider control there are other buttons for *Track (on/off), Solo, Pan, Transpose* and you also have control over the *channel* and the *track name*. All of these can be changed by selecting them with the left mouse button.

When you work with the Audio elements

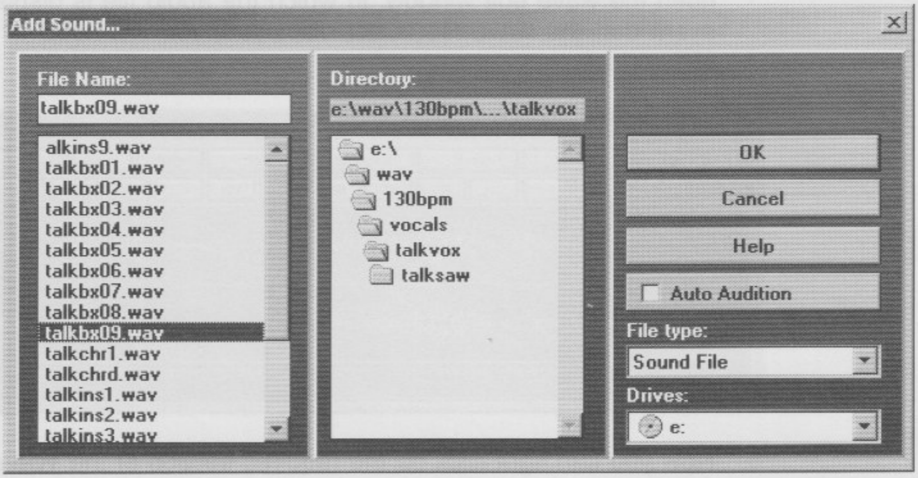
The Music Centre has the ability to edit MIDI files and audio files. How to work on these files is explained in the following pages.

Importing an Audio element

1. To begin you will need to select the *Add* Tool (the pencil icon).

2. Left click on the track display for a free audio track (e.g. AUDIO 01). This will turn it in to the *active track* and will be displayed in the top left of the Control window. You can also click on this field (Active Track), in order to change the track.

3. As soon as the cursor is located within the montage bar, then it will turn in to the shape of a pencil. If you keep an eye on the (position) display located in the top left corner of the tracks window, then you will be able to see exactly where the cursor is located. As soon as you click on the left mouse button, a dialogue box will open from which you will need to select the WAVE file that you want to insert in to the audio track:



Add Sound...

File Name: talkbx09.wav

Directory: e:\wav\130bpm\...\talkvox

☐ Auto Audition

File type: Sound File

Drives: e:

You can also record audio files yourself using a microphone or from a CD, but first try and experiment with the audio tracks on the CD supplied. For this example we will use an audio sample from CD 1. One useful feature is *Auto Audition* which provides the ability to hear the audio file before you insert it.

As soon as you click on the *OK* button in the dialogue box, you will load the audio element and it will be positioned in the montage bar.

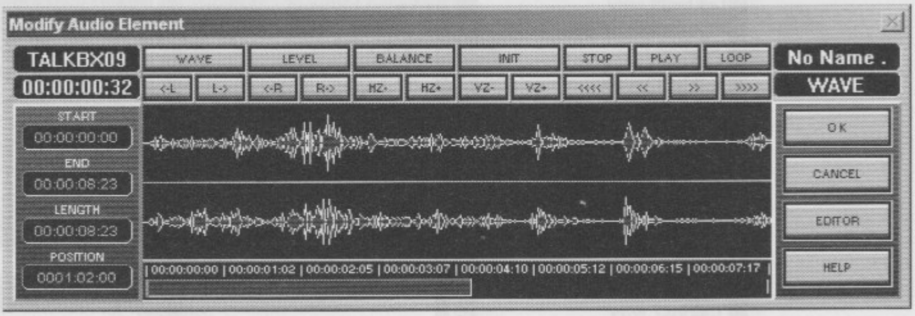
> Note: *When you load an audio element from the CD, it will also be temporarily loaded in to the Windows\Temp directory so that the file can be read much faster when required.*

Editing an Audio element

Maybe the audio element that you have selected is a little too long, or you only want to use a certain part of it.

If you need to edit the audio element, you will require the *Edit Tool* (the magnifying glass icon). You should proceed as follows:

1. Click on the *Edit* Tool in the tool box.
2. Then click on the required audio element (click on the *Normal* button, this will display the names for the elements you have loaded). This will open the wave edit window, in which the audio file is displayed. In the event that the wave file is not displayed, you will need to click on the *Waves* icon.



Modify Audio Element

TALKBX09

00:00:00:32

START: 00:00:00:00

END: 00:00:08:23

LENGTH: 00:00:08:23

POSITION: 0001:02:00

No Name .

WAVE

3. Now you can right click on the required section of the *Wave form*. This will establish the right hand ending, this will cause the audio element to only play up to this point. Of course you can also use the left mouse button to establish the beginning of the wave from that you want to play. As already described, the Music Centre will leave the WAVE file, that you are working on, unchanged. The shortened sections will only be played during the playback.

4. Test your selection by clicking on the *Play* or *Loop* icons.

5. Click on the (*No Name*) field at the top right of the window, in order to name the selection with an appropriate title and save it. This will then appear on the montage bar.

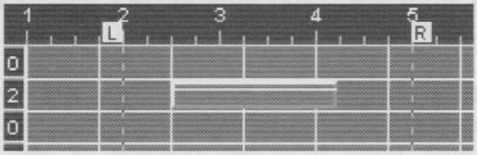
6. Click on *OK*. This will then close the Modify Audio Element window, and you will return to the Tracks window.

Positioning an Audio element

You can move any of the audio elements on the montage bar to any position that you wish, either within the same track or on to another audio track (but not in to a MIDI track).

For this you need to click with the *Move* Tool (the hand icon) on to the audio element and, keeping the mouse button pressed down, move the element in to the new position. The hand (the cursor) will usually spring to the front of the element. If you do not want this to happen, you will need to press and hold the [Alt] key down, and this may then assist in the more accurate positioning of the element.

When you release the mouse button, the element will automatically be positioned to the nearest locator on the grid. If this positioning is too inaccurate for you, you will need to click on the *Grid* field and select a higher resolution (i.e. 16).



The division of the montage bar is dependent on the settings that are made in the *Time* field of the Control window. Each *Number* represents a new beat, within each bar the beats are represented by vertical lines. With the *Zoom* icon to the left of the *Grid* field, you can increase or decrease the size of the display, in order to assist in the locating of the selection.

Copying and inserting an Audio element

1. Click on the *Move* Tool (the hand icon) from within the tool box.

2. Press and hold the [Ctrl] key.

3. Click with the left mouse button on to an audio element and move it to a new position (e.g. to the right). In order that you select the required element, you will need to take care that you only click when the fingertip of the hand symbol is within the square and not outside of it.

This will copy the complete audio element. You can also copy an audio element, or a part of an audio element, through the clipboard. For this you will need the *Limit* Tool, as all copying and cutting functions are taken from the area(s) between the left and right locators.

1. Click on the *Limit* Tool from within the tool box.

2. Use a left mouse click to position the left locator, which will locate the left hand boundary of the section that you want to copy. With a right click you will determine the right hand boundary and the length of the selection.

3. Carry out the *Edit/Copy* menu command, or [Ctrl]+[C].

4. This will open the *Copy* dialogue box with different setting (position, event, channel, value 1, etc.), which is not important, though, for the audio element. Do nothing to this dialogue box and ...

5. ... click on the *Tracks* icon.

6. Enter the audio track from which you want to copy (i.e. AUDIO 1, but it can be multiple tracks if required) and click on the *OK* button.

7. Then you need to click on the *Copy* button. This will now place the selected audio element(s) in to the clipboard and from there it can be placed in to the same track from the position of the cursor with *Edit/Paste* or [Ctrl]+[V]. From there it can be moved to the required position.

Deleting an Audio element

In order to delete audio elements (and MIDI elements), you will need to use the *Delete* Tool (the eraser icon). Click with the left mouse button on to the relevant icon from within the toolbox. The cursor will change in to an eraser. Each element that you click on with this tool will be deleted.

Using Effects

You can also apply any of the real effects to any of the audio tracks at any time you require. Use the *Tracks/Signal Processing* command menu. From the dialogue box that appears, you will need to select the track that you want to have the effect applied to. You can even select multiple effects from the list that will be applied in a selected sequence. You may want to test the different *Effects.* To do this, then, it is recommended that you switch the relevant track over to *Solo* (right click on the track title and then click on the *Solo* button) and then set it in to loop mode. You will also need to select the *Limit* Tool and click left and right over a selection of the element. Then click on the *Playback* icon.

Now you will be able to select the *Tracks/Signal Processing* menu command and try out the different settings whilst the playback is running. If you want to hear the results of the effects immediately, then you will need to press on the *Load* button of the selection window as soon as you have selected a new pre-set.

How to create your own songs

Once you have learned the basic functions of the Music Centre, you will surely want to take a hold of the keyboard and get down to creating your own compositions.

A few tips to begin with, though. How the song works is dependent on many different factors, but the basics are always the same - melody, harmony, rhythm and, if required, words. It is accepted that they do not always need to be set in this sequence as sometimes, for example, you may have the rhythm in the foreground.

Every piece of music should – where the distribution of the notes are concerned - be weighed up individually. Try not to have too many instruments playing at the same pitch and avoid only using some frequencies sparingly or not played with an instrument at all. With a good drum beat and a carrying bass line, with perhaps a few string sounds, you will find that the melody will sound a lot better.

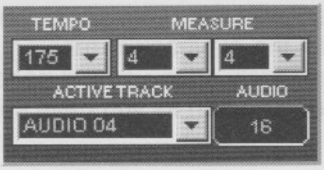
To begin with, you could try to create the so-called Groove Intro, where the drums, bass and maybe guitar or keyboard play in chords and are repeated every 8 to 16 bars. You can then layer other instruments in to the song on top of another, for example, an electronic piano from bar eight.

Setting the Tempo and Beat

Before you start to record a MIDI file, you should first make a few considerations:

- Tempo,
- Beat,
- Instrumentation.

To establish the speed and beat you need to click on the relevant field in the Control window:



TEMPO 175
MEASURE 4 4
ACTIVE TRACK AUDIO 04
AUDIO 16

If you want to change the speed of a song later on, then you can send the so-called *Master Track* a MIDI Control instruction via the Events window. You will find further details on this in the chapter entitled "Events Window". To begin with it is probably best that you select the standard 4/4 beat, even though the Music Centre can work with many other settings.

These settings can also be saved as a pre-set by selecting the *File/Save setup* menu command.

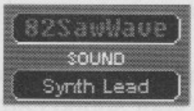
Setting the Click/Intro Counter

When recording music from a MIDI keyboard you may have some trouble getting the timing right on the first bar, so for this reason Music Centre has a built in metronome and intro count function. This will lead you into the first bar of the recording and give you time to adjust your position before the actual recording begins. Detailed instruction on this can be found in the chapter entitled "The X-Files".

Establishing the active track and tone

As we want to record MIDI files to begin with, we will need to also ensure that a MIDI track is active. To do this you need to click within the tracks window on a MIDI track; this will then automatically become the active track and the track title will be highlighted in red.

You will also need to select the desired sound for the active track. For this, you need to right click on the track title. This will open the relevant mixer desk section. In the mixer desk section, click on the sound name and the sound name dialogue box will open from which you may choose the desired sound.



If your system is set-up in the correct manner you should be able to play a few notes and hear the sound that you have just selected. If you have a MIDI keyboard connected with a digital display, you should see that the sound you have selected from the computer will also be displayed on the MIDI keyboard. Some systems will store the first sound (GrandPno) in sound bank 001, and other systems will use sound bank 000. If this is the case for your system, the sound names will be different on the computer and the instrument, but it will still be fully useable.

If the *Click* icon is highlighted then you will hear a metronome accompaniment, to which you can play.

To commence the recording, press the [F7] key. You can also start the recording by clicking on the red colored icon from within the Control window. The pre counter will begin to count in for 1 or 2 bars. Everything that you now play will be shown in the active track until you press the stop button, or press the [Space] bar.

If you want to add another track such as strings to your composition, then you will need to select a new MIDI track (i.e.MIDI02) and make it active. Click on the MIDI02 track title and proceed to select a sound. Start to record once more - the track that you have just recorded on MIDI01 will automatically start to playback along with you. (A pre-requisite for this, though, is that your soundcard is duplex capable, i.e. it can record and playback at the same time). This means that you will be able to record the new track while listening to the timing of the other recorded tracks.

The created MIDI files can then be moved, copied, transported, quantified, re-worked with effects, etc. For this we suggest that you open the chapter entitled "Touch Base - Music Centre Reference" and the sub chapter "MIDI Effect Generator" to find the relevant menu commands information.

How to make an Audio recording

In order to record audio from an external source into Music Centre, you will need to follow the next few steps:

1. Firstly you will need to connect the (line-out) socket from you audio equipment, to the (line-in) socket on your computer's sound card.
2. If you wish to record using a microphone then you can connect a standard microphone to the *Mic in* socket of your sound card.
3. Open the mixer desk window by clicking on the *Mixer* icon in the Control window.
4. Under *Options/Properties* you need to click on recording. You will need to pay attention to the fact that all of the volume controls are visible (i.e. Recording Control, Line-in, Microphone, CD, Aux, etc.).
5. Click on the *OK* button. This will make the Windows mixer desk regulate the recording volume and not the playback of a sound. The volume control of the relevant channel will also need to be activated, (i.e. MIC, if you want to record from a microphone, or CD, if you want to make a recording of an audio CD from the CD ROM drive.
6. In the Control window click on the *Monitor* button, in order to check if the input signal is sufficient (watch the gauge peaks). You should always ensure that the signal is not permanently in the red area. It is recommended that you make a test recording.
7. Highlight an audio track in the tracks window. Click on the *Record* icon or press [F7]. Now you will commence the recording of the audio file (i.e. your voice through the microphone). If you want to hear a play back of previously recorded elements at the same time as you are recording, then you will need to ensure that your sound card supports duplex. Otherwise, you will not be able to hear what you have previously recorded.
8. In order to now listen to your recording, set the play position to 0 (press the [0] key or click on the *Play* button in the Control window) and start the playback.

How to record from a CD

Recording from a audio CD using the CD ROM drive is very different to recording from a microphone. In the following, we will assume that the CD ROM drive is interconnected with the sound card. If this is not the case, then you will need to connect the CD ROM via a cable in to the *Line-in* socket of your sound card.

1. Using the Windows Mixer window, check that the microphone input has been de-activated and that the CD-ROM input is activated.

2. Select an audio track in the Music Centre (i.e. A02), on to which the recording is to be made.

3. It is probably now best to start the Windows CD Player and press the pause button just before the item that you want to record.

4. In the Music Centre you should press ([F7] or click on the *Record* button in the Control window).

5. Click on the *Play* button of the Windows CD Player.

6. You will stop the recording by clicking on the *Stop* button or by pressing the [Space] bar.

Quick Help

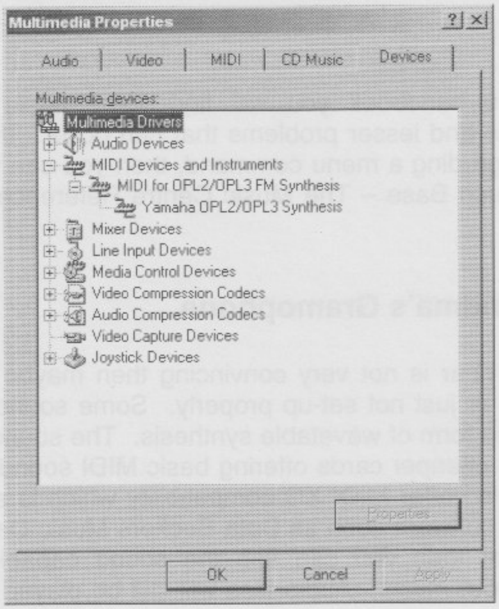
In this section of the handbook you will find some basic information regarding the problems and lesser problems that can occur. If you require specific information regarding a menu command, then you can find detailed information in the "Touch Base – The Music Centre Reference" chapter of this handbook.

Everything sounds like Grandma's Gramophone

If the sound that you hear is not very convincing then maybe your sound card is of poor quality or just not set-up properly. Some sound cards offer advanced sounds in the form of wavetable synthesis. The sounds are much more realistic than the cheaper cards offering basic MIDI sound generation. Recent sound cards also offer MIDI XG compatibility which is a real bonus when using dedicated software such as Data Beckers Music Centre. If you have a MIDI keyboard then you can use the sound capabilities of the keyboard to listen to your music. Audio files will still be played through the sound card.

You will be able to find an overview of all of the drivers available on your system in Windows 95 under the *Start/Settings/Control Panel* menu. There you need to click on the *Multimedia* icon and the on the *Advanced* tab. From the *MIDI devices and instruments* you will see a list of all of the installed devices.

Highlight the devices and click on the *Properties* icon. Check if any error messages are indicated and if the *Use MIDI features on this device* option is activated. If you think there is still a problem, locate the original disk and re-install the sound card driver if necessary.



Multimedia devices:

- Multimedia Drivers
  - Audio Devices
  - MIDI Devices and Instruments
    - MIDI for OPL2/OPL3 FM Synthesis
      - Yamaha OPL2/OPL3 Synthesis
  - Mixer Devices
  - Line Input Devices
  - Media Control Devices
  - Video Compression Codecs
  - Audio Compression Codecs
  - Video Capture Devices
  - Joystick Devices

Problems when cutting and copying

When I use the copy function, I do not always know exactly what the Music Centre is copying on to the clipboard. It never copies what I want it to copy.

This can be due to the fact the locators are not positioned correctly. In the Music Centre any data which is to be placed on to the clipboard must first be determined by the locators. You should select the *Limit* Tool and set the locators either side of the data that you require to be copied. A left click will set the left locator and a right click will position the right locator, and only the section between these two locators will be used.

Working on Audio files

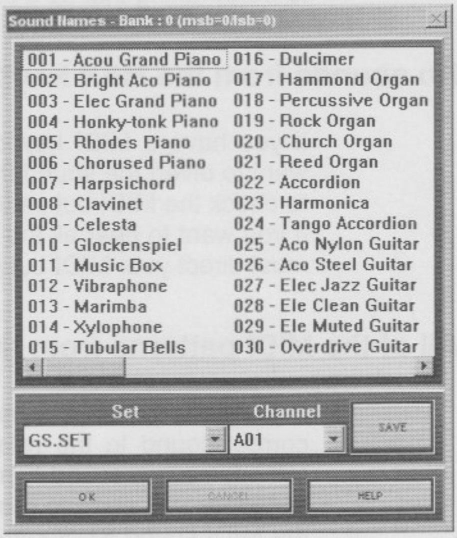
How can I cut an audio element more precisely, i.e. if I only want to listen to a small part of it?

To work on an audio element you require the *Edit* Tool (the magnifying glass icon). Select this tool from the toolbox by clicking on it with the left mouse button and then click on the audio element that you want to work on. This will then open a dialogue box, where you can left and right click to determine which section of the WAVE file you wish to use.

Displaying the Sound Name

In the *Tracks* window there are only track names shown such as *AUDIO 1* or *MIDI 04* or the incorrect sounds, but I want it to show the correct sound names.

In the *Options/Sound Names* menu command, check if the channel of the relevant track (i.e. A01) also has a so-called sound description allocated to it. If you select a channel from the dialogue box that then appears, then a relevant set should appear to the left (usually this should be *GM.SET* or *GS.SET*). If this is not so, then you need to select a relevant set.


Sound Names - Bank : 0 (msb=0/lsb=0)

001 - Acou Grand Piano
002 - Bright Aco Piano
003 - Elec Grand Piano
004 - Honky-tonk Piano
005 - Rhodes Piano
006 - Chorused Piano
007 - Harpsichord
008 - Clavinet
009 - Celesta
010 - Glockenspiel
011 - Music Box
012 - Vibraphone
013 - Marimba
014 - Xylophone
015 - Tubular Bells
016 - Dulcimer
017 - Hammond Organ
018 - Percussive Organ
019 - Rock Organ
020 - Church Organ
021 - Reed Organ
022 - Accordion
023 - Harmonica
024 - Tango Accordion
025 - Aco Nylon Guitar
026 - Aco Steel Guitar
027 - Elec Jazz Guitar
028 - Ele Clean Guitar
029 - Ele Muted Guitar
030 - Overdrive Guitar

Set: GS.SET

Channel: A01

The Tracks are not being played

Even though I can see all of the tracks on the montage bar, not all of them are being played. Why is this so?

This may be because you have switched another tack on to solo. This is a mode where only the track selected can be played and any others available are mute. To make all the tracks play at the same time, firstly open the Mixer Desk window. From there you can deactivate the *solo* switch (the LED should be switched off).

You can also achieve this by right clicking on the title of the solo track and turning off the solo function when the individual mixer for that track appears.

The SOLO function serves to allow you to test each of the tracks individually without the need to set all the other track volume levels to zero. A track may also be switched off completely (the track LED is not illuminated). You will then need to re-activate it by clicking on the track icon.

Another possibility would be, for example, that a drum track has not been allocated to channel 10 or the allocated channel (i.e. A05) already has another sound allocated to it. When setting up a series of tracks for MIDI composing, each sound or instrument in the composition must have a unique channel, although many channels may use the same sound. Also it is worth noting that as a standard, channel 10 is reserved for drum patterns.

No sounds from the MIDI Keyboard

If you have a MIDI keyboard which either has no sound generator or you want to divert the sound through your computer speakers, then you will need to check the MIDI out setting for the computer is directed to your sound card. If you want to hear all the MIDI tracks played on the MIDI keyboard then you must direct your MIDI out port to your keyboard.

All of the MIDI patterns from the CD sound like a piano

If you have imported a pattern as a MIDI file, then you need to allocate the correct sound to the relevant track. Some of the file names on the CD already have a sound name allocated to them, i.e. *Squarew81.mid.* In these instances you need to click on the track name to the right, and then allocate the MIDI sound 81 *Square Wave* to the track. Now you will be able to hear the track as it was intended to sound.

Insertion of notes in the Grid Window

If I use the *Add* Tool to insert notes in to the *Grid* window, then they disappear from there after a short time – why is this?

This is probably because the file is actually in the replay mode, and you have set the *Grid* window to *Follow on.* This will make the *Grid* window always roll to the right, so to speak. Take a quick look at the *Position* display in the Control window; if this increases, then you simply need to [press the [Spacebar]. And the notes that you have inserted have not, in fact, disappeared, rather they have simply moved out of your view.

Keyboard shortcuts

Key Combination	Menu	Command
[Ctrl] + [N]	File	New
[Ctrl] + [O]	File	Open sequence
[Ctrl] + [S]	File	Save sequence

Key Combination	Menu	Command
[Alt] + [I]	File	Import MIDI file
[Alt] + [E]	File	Export MIDI file
[Alt] + [F4]	File	Exit
[Ctrl] + [Z]	Edit	Undo / Repeat
[Ctrl] + [X]	Edit	Cut
[Ctrl] + [C]	Edit	Copy
[Ctrl] + [V]	Edit	Paste
[Ctrl] + [I]	Edit	Merge
[Alt] + [Q]	Edit	Quantize Midi
[Alt] + [T]	Edit	Transform Midi
[Alt] + [M]	Options	MIDI Set-up
[Alt] + [W]	Options	WAVE Set-up
[Alt] + [K]	Options	Keyboard Set-up
[Alt] + [A]	Options	Recording Set-up
[Alt] + [U]	Options	Sound names
[Alt] + [C]	Options	Click / Count
[Alt] + [X]	Options	Sysex
[Alt] + [Z]	Options	GM / GS / XG
[Alt] + [L]	Control	Set Left locator
[Alt] + [R]	Control	Set Right locator
[Alt] + [P]	Control	Set Position
[O]	Control	Go to zero position
[F1]	Control	Fast Rewind
[F2]	None	Reverse
[F3]	None	Forward
[F4]	Control	Fast Forward
[F5]	Control	Stop
[F6]	Control	Play
[F7]	Control	Record
[F8]	Control	Active track
[F9]	Control	Click
[F10]	Control	Count

Key Combination	Menu	Command
[F11]	Control	Loop
[F12]	Control	MIDI Thru
[Shift] + [F1-12]	Cues	Set cues 1 to 12
[Ctrl] + [F1]	None	Help
[1]	Window	Open/Close *Mixer Desk* window
[2]	Window	Open/Close *Events* window
[3]	Window	Open/Close *Cues* Window
[4]	Window	Open/Close *Keyboard* Window
[6]	Window	Open/Close *Juke Box* Window
[7]	Window	Open/Close *Score* Window
[8]	Window	Open/Close *Grid* Window
[9]	Window	Open/Close *MIDI controller* Window
[Alt] + [1]	Window	Open/Close *Master Mixer* window
[Alt] + [2]	Window	Open/Close *Tracks* window
[Ctrl] + [F4]	None	Close window
[Ctrl] + [F6]	None	Activate next window

Touch Base – The Music Centre Reference

This reference section contains two large sections: the first is a complete description of all of the menus and the commands contained therein, and the second section contains complete information on how to use the different windows contained in the Music Centre.

File Menu

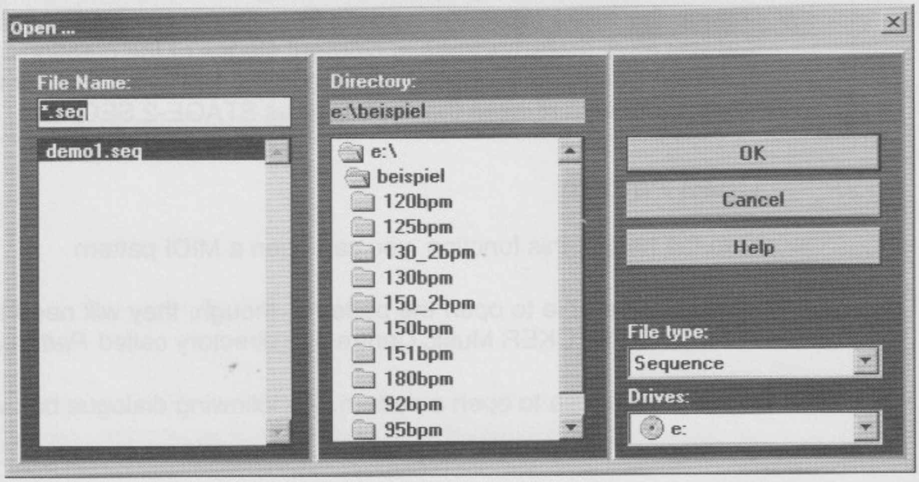
New

The *new* function closes the current files and initialises the program with a default setting (you can define your own default settings that, by using the *Save set-up* function, will be saved in the *Quartzam.ini* file).

Before the new initialisation you will be asked to confirm your intentions through a dialogue box.

Open Sequence...

With the help of this function you can load a piece of music in the DATA BECKER Music Centre format (files using the *.seq* extension).



File Name: *.seq

Directory: e:\beispiel

File type: Sequence

Drives: e:

A *seq* file contains all the information from the MIDI and audio tracks saved in the composition. A standard Windows file selector is used to locate the file.

Note: If an audio element is loaded from a CD, then this will be saved in the sequence as a .wav file within the directory.

Save Sequence as...

With the help of this function you can save a piece of music in the DATA BECKER Music Centre format (file with a *.seq* extension).

The naming of the file and the directory allocation of the file can be made through the *Save as* dialogue box.

You do not necessarily need to enter the file extension. The program will automatically allocate the file extension required.

Save Sequence...

By using this function you can save changes to a previously saved piece of music in the DATA BECKER Music Centre.

You do not need to enter either a new file or the directory, as this usually relates to the updating of the file that you are working on.

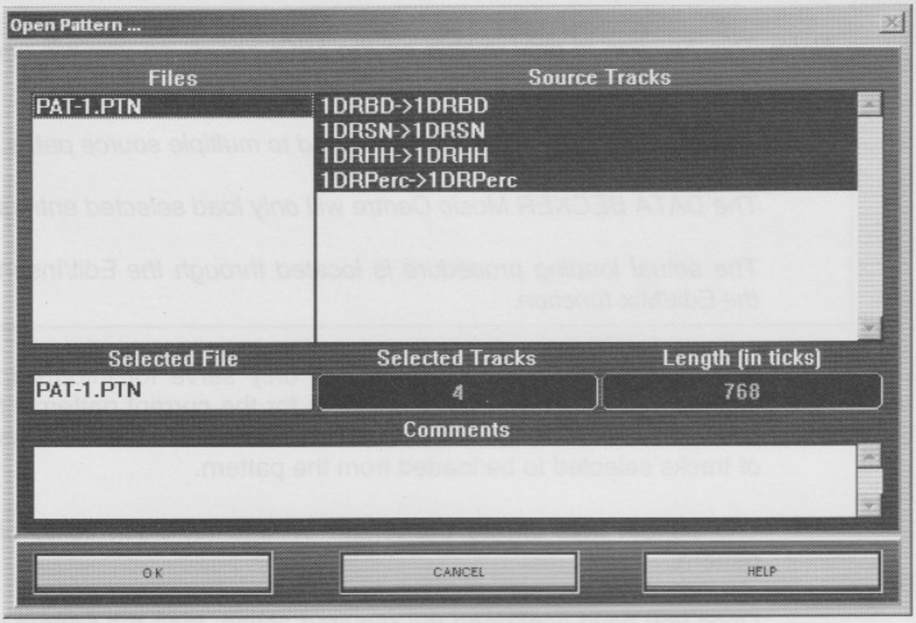
Note: When composing a large piece of music, it is advisable that you regularly change the name (save the working file with a new name). This will ensure that you have many backups at different stages of the creation. For example you could name the original sequence as STAGE-1.SEQ and then after some alterations re-save the sequence as STAGE-2.SEQ.

Open Pattern

With the help of this function, you can open a MIDI pattern

In order to be able to open the patterns, though, they will need to be located in the DATA BECKER Music Centre sub directory called *Patterns*.

When you choose to open a pattern, the following dialogue box will appear:


Open Pattern ...

Files: PAT-1.PTN

Source Tracks:
1DRBD->1DRBD
1DRSN->1DRSN
1DRHH->1DRHH
1DRPerc->1DRPerc

Selected File: PAT-1.PTN

Selected Tracks: 4

Length (in ticks): 768

Comments:

The dialogue box provides the following choices:

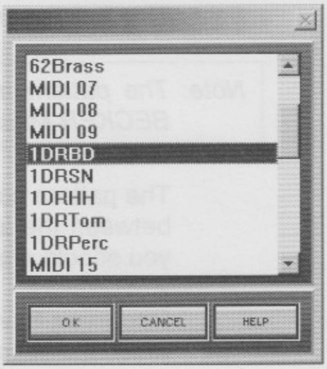
- The choice to load a pattern (*File* field)
- The choice to load a selection of tracks from the pattern (*Tracks source* field)

Each entry on this list displays a track contained in the pattern file. The entry is displayed in two parts, the original track title, followed by the destination (the track where it will be pasted).

(Original name) -> (Destination track)

If you need to change the destination track for a particular part, then double click on the part, then a track list-box will appear where you may select a new destination track.

To close the list you will need to click on the *OK* button.


62Brass
MIDI 07
MIDI 08
MIDI 09
1DRBD
1DRSN
1DRHH
1DRTom
1DRPerc
MIDI 15

Note: This function is only usable on the MIDI tracks, so you will need to ensure that the active track actually is a MIDI track.

A destination path can not be allocated to multiple source paths.

The DATA BECKER Music Centre will only load selected entries (paths).

The actual loading procedure is located through the Edit/Insert *function, or the* Edit/Mix *function.*

The other fields in the dialogue box only serve for information purposes: *Comments* only shows the comments for the current pattern. *Selected File* shows the name of the current pattern. *Selected Tracks* shows the number of tracks selected to be loaded from the pattern.

The *Length* field shows the length of time (in clock ticks) of the current pattern.

Once you have confirmed the required action, then the pattern will be saved to the clipboard, which means that you will need to insert the pattern in to the current piece of music using the *Insert* or *Mix* or [Ctrl]+[V] commands from the *Edit* menu.

Note: When the pattern is passed into the current composition, it will be pasted at the position of the left locator.

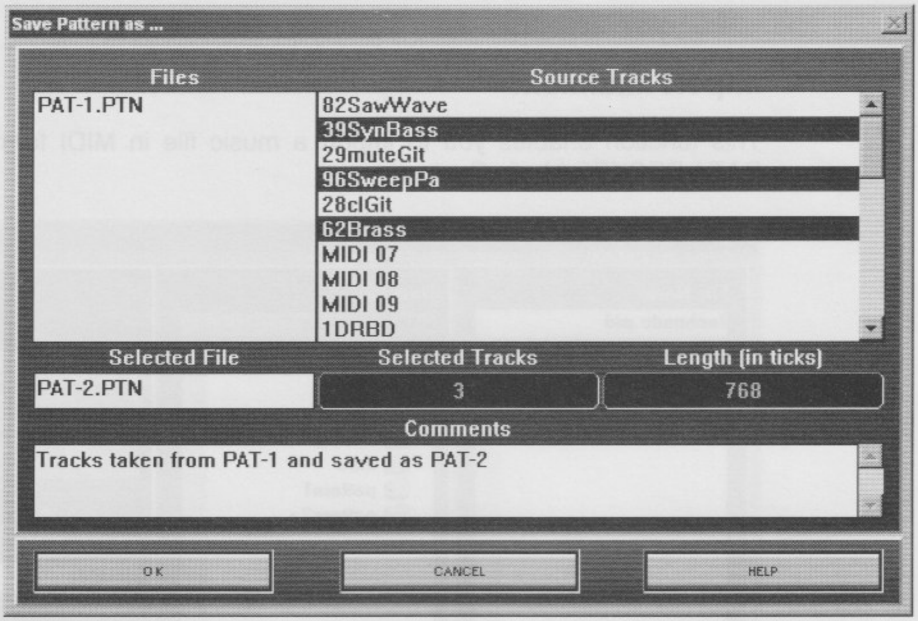
Save Pattern as

This function enables you to save MIDI data as a pattern file.

Note: The pattern must be saved in to the Pattern *sub directory in the DATA BECKER Music Centre main directory.*

The pattern contains all of the MIDI data of the required tracks in the section between the left and right locators. Therefore, before calling this function, you should ensure that the locators are set in the correct positions.

Once you have called the function, the following dialogue box will appear, which includes the following:



PAT-1.PTN

82SawWave
39SynBass
29muteGit
96SweepPa
28clGit
62Brass
MIDI 07
MIDI 08
MIDI 09
1DRBD

Selected File: PAT-2.PTN

Selected Tracks: 3

Length (in ticks): 768

Comments: Tracks taken from PAT-1 and saved as PAT-2

- In the *Files* list you have the option to save over an existing pattern file, take caution as you could loose valuable data.

- *Source Tracks* provides you with a list of all the tracks in the current file from which you can select only the tracks which you want to include in the pattern.

- In the *Comments field*, enter any relevant information such as the type of music, tempo and what it could be used for.

The other fields in the dialogue box only serve to provide information about the data in the file.

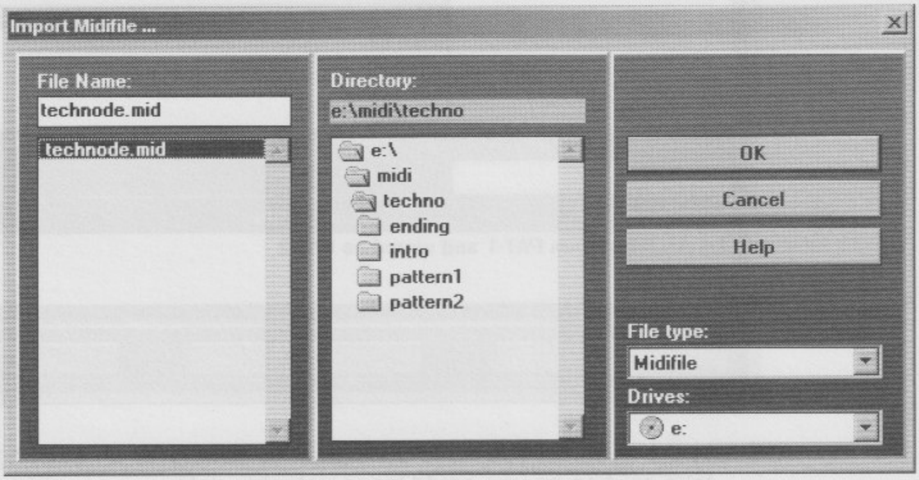
- The *Select Tracks* field shows the number of tracks in the pattern that are selected for loading.

- The *Length* field shows the duration (in ticks) of the actual pattern contained in the current piece of music.

It is not necessary to enter the file extension after the file name. The program will automatically allocate the correct extension for the file.

Import Midifile...

This function enables you to import a music file in MIDI format in to the DATA BECKER Music Centre.



Import Midifile ...

File Name: technode.mid

Directory: e:\midi\techno

File type: Midifile

Drives: e:

Once the file is loaded, the program will display a dialogue box where you will need to allocate which MIDI port (A or B) is to be used.

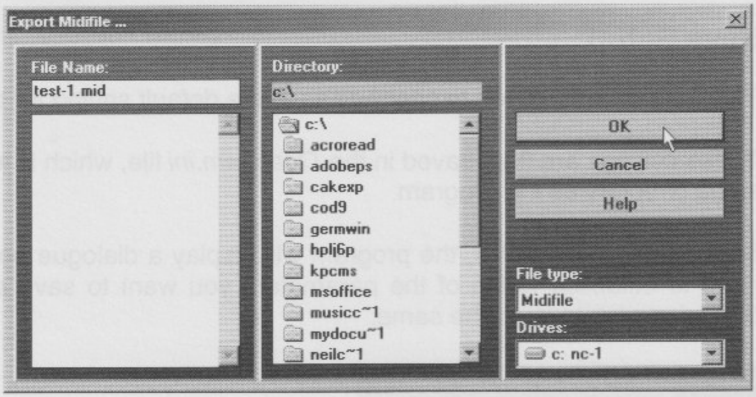
A standard MIDI file will contain data about the music and also data about the tracks (channels) which are used. Normally there will be a maximum of 16 channels used, but Data Becker's Music Centre is the next generation in MIDI software and can handle two MIDI ports simultaneously providing 32 tracks.

You can make any changes later on, if required.

Export Midifile...

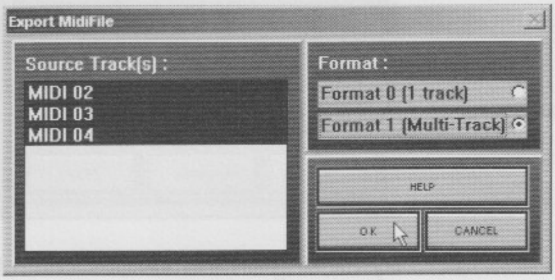
This option allows you to save the current MIDI data as a standard MIDI file which can be played back using any computer which has Windows and a sound card.

Once this option has been selected you will be presented with a dialogue box in oder to provide a name and location for the new file.



File Name: test-1.mid
Directory: c:\
File type: Midifile
Drives: c: nc-1

When you have chosen a name and location for the file, click on *OK* and the next dialogue box will appear.



Source Track(s) :
MIDI 02
MIDI 03
MIDI 04

Format :
Format 0 (1 track) ○
Format 1 (Multi-Track) ●

From the *Source Track(s)* field, select the tracks that are to be save as part of the new file. In the *Format* section, select the *Format 1 (Multi-Track)* option as this is common to virtually all systems at present. Now press *OK* and the file will be created.

Export Audio

This command allows the mixing of all **selected** audio files (the so-called Mixdown). The audio files are combined and saved to disk as a single WAV file. It is then possible to re-import that WAV file onto just one Audio track.

Note: *You can use this to reduce multiple audio tracks on to one track and thereby release the other Audio tracks for further recording.*

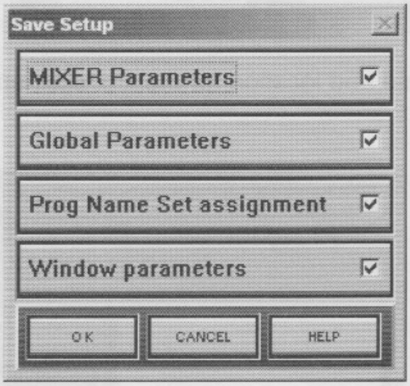
Using the *Frame* Tool, click directly on the required Audio part in order to select it. You will notice that any selected Audio parts will change color to black. To select multiple Audio parts, hold down the [Shift] key while making the selection, or hold down the left mouse button and drag the *Frame* Tool over the desired selection.

Save Setup

This function allows you to alter and save the default setting for the program.

These settings are then saved in the *Quartzam.ini* file, which is located in the same directory as the program.

Before you save the file, the program will display a dialogue box where you need to establish which of the parameters you want to save and which of them you wish to keep the same.



MIXER Parameters ☑
Global Parameters ☑
Prog Name Set assignment ☑
Window parameters ☑

By clicking on the various control boxes that are available, you will set the relevant settings that you want to keep before saving the results (by default, all parameters are saved).

There are four types of parameters:

1. *The MIXER-Parameters*
   These are the actual parameters for the *Mixer* window (balance, volume, channels, transposing, etc.).
2. *The Global Parameters*
   These are the general parameters for the program itself, which are set in the following dialogue boxes: *MIDI Set-up, WAVE Set-up, Record Set-up, Click/Pre counter* and *GM/GS.*
3. *Prog Name Set assignment*
   This is where the comparison of the sound description lists and the *Sound Name* dialogue boxes, of the defined MIDI channels, takes place.
4. *The Window Parameters*
   This is for the positioning and actual size of the windows used in the DATA BECKER Music Centre are set.

Quit

With this function, you will exit from the DATA BECKER Music Centre program.

If you are currently editing a piece of music and have made changes since the last time the file was saved, a dialogue box will appear. This dialogue box will request that you confirm that you do want to exit form the program and it will also ask if you want to save the current piece of music. If it is a new composition (unnamed), you will be asked to give the file a name.

Recent files

You can open any of the last four pieces of music (*.seq* or *.mid*) by simply clicking on the file name listed in order, at the bottom of the File menu.

Edit Menu

Undo

This function reverses the last action. Use this function if you have made a mistake and wish to undo that mistake.

Once you have used the Undo function, you will find that the menu command will have been replaced with *Redo* in the same position.

By using *Redo* you will be able to compare the two situations old and new, and decide which is best.

Cut

This function allows you to cut out (delete) MIDI or Audio data on one or more tracks. This option only effects data contained between the locators.

The function deletes the data without changing the position of the following data in the piece of music. i.e. the relevant section of music is effectively "emptied" and then placed in to the Windows clipboard.

The section that has been cut will remain in the clipboard until a new item is cut or copied, Any data which is held in the clipboard can be used for the *Paste* and *Merge* functions.

When you use the *Cut* command, a dialogue box will appear. You will need to click on the *Tracks* button and select the tracks (1 or many) from which the data is to be cut.

Cutting can be reversed with the use of the *Undo* function.

Conditions

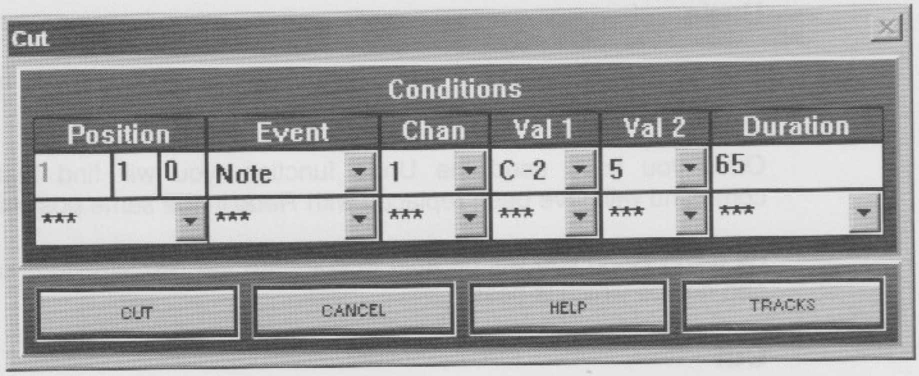
For the following functions, *Copy, Cut, Quantize* and *Transform*, there are individual dialogue boxes created for each. Here we will describe the conditions that you may need to set for various situations.

The conditions are not valid for any audio data.

If conditions are defined then only the data which meets the requirements specified by the conditions will be used.

If you do not define any conditions, then all data will be taken in to consideration.

The dialogue box is divided in to multiple sub-fields, which, depending on the function called up, will, or will not, be available:



Position			Event	Chan	Val 1	Val 2	Duration
1	1	0	Note	1	C-2	5	65
***			***	***	***	***	***

Within the *Conditions* dialog box are six columns, each with two entry fields (drop-list fields). Each column represents a different parameter:

Position	Set the position within a beat
Event	Select the type of event (note, pitch bend, xpose) etc.
Channel	Select the MIDI channel.
Value 1	Select the value of (note, pitch bend, expose) etc.
Value 2	Note volume, Note velocity etc.
Duration	Selects events where duration = xx or <> or > etc.

For each parameter you can set logical conditions, which can be selected from a list. This means that it is possible to be extremely precise in setting the criteria for the selection. If the list is not accessible, then the relevant parameter is not available for this type of event.

The logical conditions that can be set are:

***	No conditions
=	Equals
<>	Unequal
<=	Less than and equal
>=	Greater than and equal
<	Less than
>	Greater than

If the *** (= no conditions) is selected, then the above value becomes meaningless, as the parameter can not be taken in to consideration.

***Example**:* Assume that you only want copy notes greater than “C3” on channel 2, placed on the 2nd beat of the bar with a velocity below 64 and duration is different to 24 ticks (an 8th note in a 4/4 bar).

For this you would require the following filter:

“2 : 0” and “=”	In the *Position* parameter
“Note” and “=”	In the *Event* parameter
“2” and “=”	In the *Channel* parameter
“C3” and “>”	In the *Value 1* parameter
“64” and “<”	In the *Value 2* parameter
“24” and “<>”	In the *Duration* parameter

The *Transform to* field is only available when *Transform* function is used. It operates in the same way as described above, but the fields in the second line only offer two selection possibilities:

***	->	Do not change the parameters
OK	->	Change the parameters

The *qauntisation* filed is only available with the *Quantize MIDI* function. This field enables the setting for the Quantizing parameters. (further details on this are covered in the "MIDI Transforming" and "MIDI quantizing" chapters).

The *Track* button is only available with the *Copy* and *Cut* functions. With the use of this icon you will have a list of the tracks available, which will be affected by the function selected.

Copy

This function allows you to copy MIDI or Audio events from one place to another within your composition. The data being copied must be defined using the left and right locators.

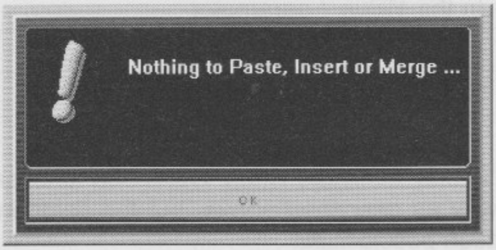
Copied events remain in the clipboard, until a new item is copied, or cut. Any MIDI events currently in the clipboard may be used for pasting or merging into existing MIDI data.

When copying data, the Conditions dialogue box will appear. You may wish to copy all events between the locators, but as with *Cut*, you can also define the parameters for these conditions and therefor be more precise.

Paste

This function allows MIDI or Audio events that have been copied or cut in to the clipboard, to be pasted into the position that you have defined with the locators.

The contents of the clipboard will then be pasted at the position of the left locator. The data which is pasted is defined only by what had been copied or cut from a previous location. If no data is available for pasting, a message box will be displayed on the screen.



Nothing to Paste, Insert or Merge ...

Example: Certain events were copied from Tracks 1, 2 and 3 and from bar 1 to bar 5 (4 bars).

If the left locator is then placed on to bar 5 and you use the *Paste* function, then all of the events from tracks 1, 2 and 3 between bars 5 and 9 (4 bars) will be replaced by the events that are in the clipboard.

Paste can be deleted or reversed using the *Undo* function.

Merge

This function enables the merging together of MIDI events which have previously been placed in the clipboard with the *cut* or *copy* functions, in to a different position that you require (on the same track) within the piece of music.

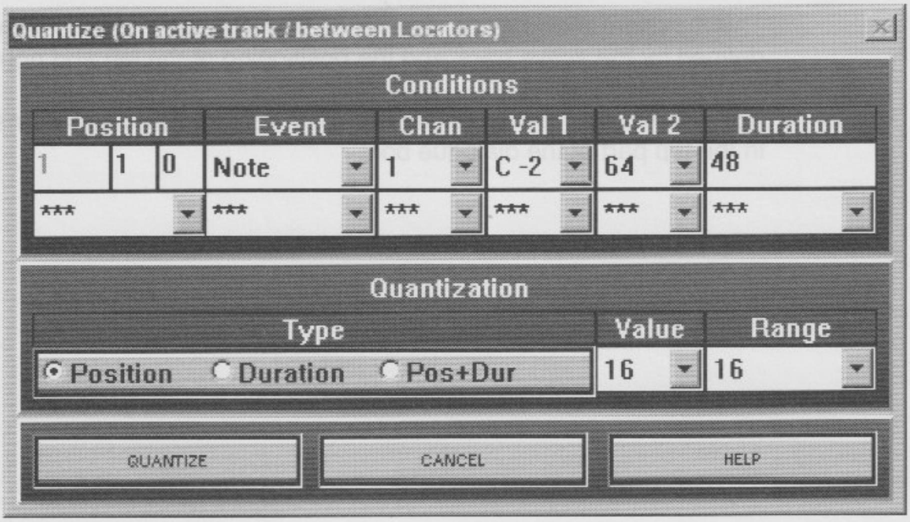
Events are merged at the position of the left locator.

Example: Events from tracks 1 were copied from bar 1 to bar 5 (4 bars).

The left locator is now set on bar 5 and you use the *merge* function, the events that were copied are then merged with the existing events located between bars 5 and 9 (4 bars).

You can reverse the *merge* action with the use of the *undo* function.

Quantize MIDI



Quantize (On active track / between Locators)

Conditions

Position	Event	Chan	Val 1	Val 2	Duration
1 1 0	Note	1	C -2	64	48
***	***	***	***	***	***

Quantization

Type	Value	Range
● Position ○ Duration ○ Pos+Dur	16	16

This function allows the quantization of MIDI events on the active track within the bars defined by the left and right locators.

When the dialogue box appears on you screen you will need to enter the conditions for the action.

The three *Type* fields establish what is to be "quantized". You have the following selection possibilities:

Position	(only the position of the events)
Duration	(only the duration of *note* events) or
Pos + duration	(Position and duration)

The *Value* field is where you set the reference position on which events should be quantized. Available values range from "1" (whole note) to "64" (64th note) including pointed values (number followed by a ".") and tuplet values (number followed by a "t").

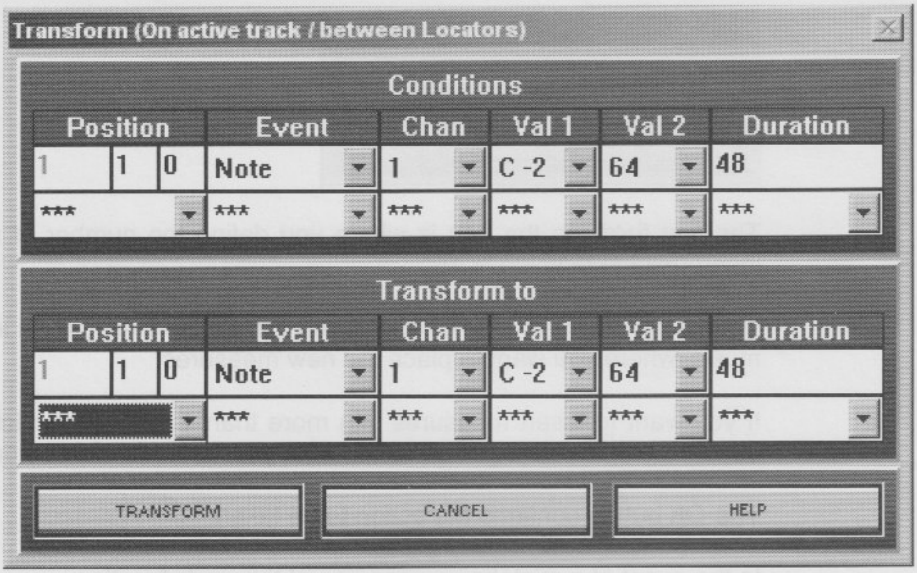
The *Range* field defines the maximum catchment distance between the reference position (set in the *Value* field) and the actual position of the existing events.

Quantize can be reversed with the use of the *undo* function.

Transform MIDI

This function allows MIDI data to be transformed. This option is primarily defined by the active track and the positioning of the left and right locators.

You need to define the conditions (some values) or no conditions (no values) in the top part of the dialogue box:


Transform (On active track / between Locators)

Conditions

Position	Event	Chan	Val 1	Val 2	Duration
1 1 0	Note	1	C -2	64	48
***	***	***	***	***	***

Transform to

Position	Event	Chan	Val 1	Val 2	Duration
1 1 0	Note	1	C -2	64	48
***	***	***	***	***	***

The fields in the second row only offer the two following possibilities:

***	->	Do not change the values
OK	->	Do change the values

The transformation can be reversed with the *undo* button if the result is not as expected.

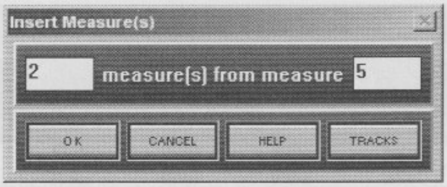
Tracks Menu

Insert Measures

Using this function you can insert a number of empty measures into one or more tracks in your composition.

When the empty measures are inserted, all data currently in that location will be moved towards the end of the track to make room for the new measures.

A dialogue box will appear in which you will have two values to set.


Insert Measure(s)

2 measure[s] from measure 5

The first field (on the left) is where you define the number of measures to insert (minimum value is *1*).

The second field (to the right) is where you define the position in the current music, where you want to place the new measures.

If you want to insert measures into more than 1 track then click the *Tracks* button within the dialogue box and make your selection form there.

The *OK* button confirms the action to be taken.

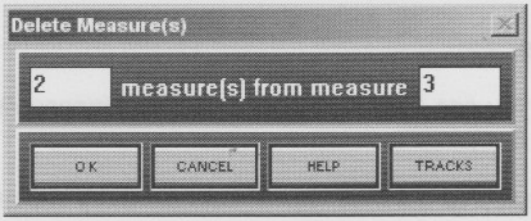
In the event of a mistake you can use of the *undo* function.

Delete Measures

This function will allow you to delete a number of measures from one or more tracks in your composition.

When activated, the defined number of measures will be deleted and any data to the right of the deleted measures will be moved left to fill the space.

A dialogue box will appear in which you define the number of measures to delete and also the position from where they are to be deleted.


Delete Measure(s)

2 measure[s] from measure 3

The first field (on the left) is where you define the number of measures to delete (minimum value is *1*).

The second field (to the right) is where you define the position in the current music, from where you want the measures deleted.

If you want to delete measures from more than 1 track then click the *Tracks* button within the dialogue box and make your selection form there.

The *OK* button confirms the action to be taken.

In the event of a mistake you can use of the *undo* function.

Mix Down MIDI tracks

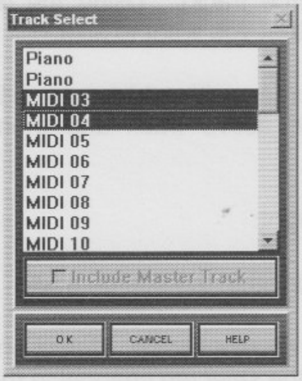
This function allows you to choose two or more MIDI tracks and mix them together onto one track. The destination track must be a MIDI track and must also be available or empty.

> Note: *If the tracks which you select for mixing have different sounds (e.g. piano and strings), then once the mixing procedure is complete, the result will be a single track with a single sound depending on the sound name defined in the destination track.*

This operation only takes place within the boundaries of the left and right locators. If the locators are set to (left=2 and right=4), then only the data from measures 2 and 3 will be used. When the new track is created from the mix, the data will be placed on the new track in the position of the left locator.

Select the destination track (the track which will contain the result of the mix-down procedure).

Select *Mix-Down MIDI Tracks* from the *Tracks* menu. When the track selection dialogue box appears, use the mouse to select one or more tracks from the list.



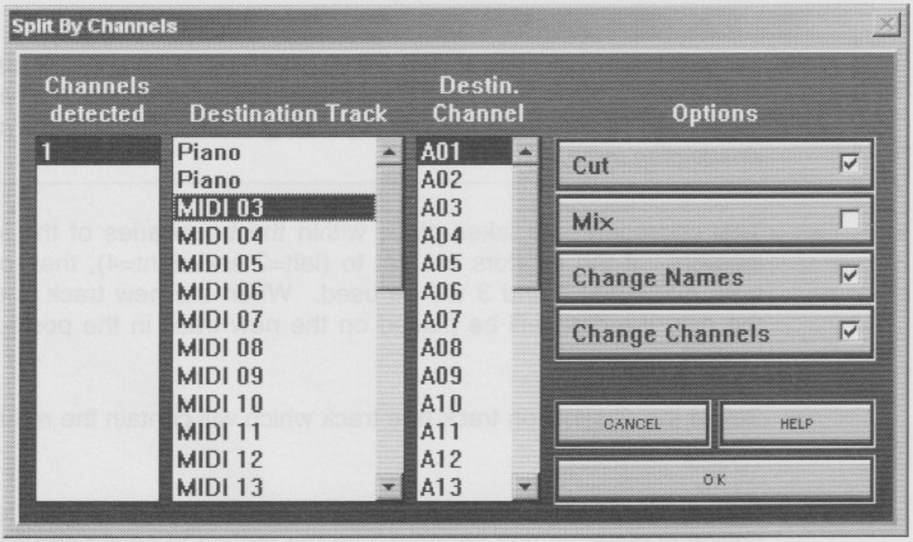
Click *OK* to complete the task.

The action of mixing MIDI tracks can be reversed with the use of the *undo* function.

Split MIDI Track by channels

When two or more MIDI tracks are mixed-down into a single track, the information about where the data came from is also saved in that track along with the music events.

It is possible using the *Split MIDI Track by channel* command to separate the data from a single combined track, back into multiple tracks.



Cut ☑
Mix ☐
Change Names ☑
Change Channels ☑

Before you begin this operation, you should be sure that the track which you want to split, is the active track (source track). Using the left and right locators, establish the part of the track that you want to split.

A dialogue box will appear on the screen with which you will be able to identify each of the channels on the active track and then define the destination channels for the split.

The dialogue box displays from left to right:

- A list of the channel numbers found within the source track.
- A list showing the track titles in the current set-up. Select one entry from this list as the destination track for the selected channel in the first list.
- A list showing the channels available. Select a number from this list as the destination for the selected channel in the first list.
- Four tick option buttons

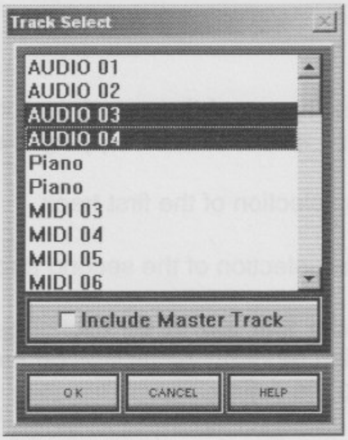
The four option buttons have the following uses:

Cut	The data will then be deleted from the source track
Mix	The source data will be mixed with the data of the destination track.
Change Names	Enters a new name for the destination track
Change Channels	Confirms the channels that have been allocated in the destination track as those in the *Destination channel* list.

You can reverse the actions you have taken in the *MIDI track splitting* with the use of the *undo* function.

Erase Tracks

This function allows for the quick deletion of the entire contents of one or more tracks.



Once you have selected this menu, a list of available tracks will appear, in which you will be able to identify the tracks that you want to delete.

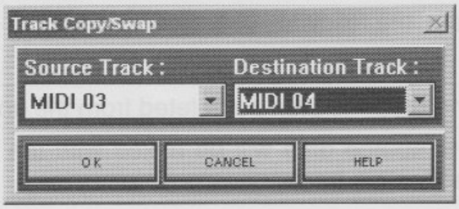
You should click on the *OK* button to confirm the action, or click on the *Cancel* button if you do not want to proceed with the action.

You can always reverse the action of the *Delete Track,* if you require, with the use of the *undo* function.

Track Copy

This function allows you to copy the complete contents of one track in to another track.

When you select the menu, a dialogue box will appear on your screen displaying the following contents:



MIDI 03

MIDI 04

1. To the left there is a list field for the selection of the source track.

2. To the right there is a list field for the selection of the destination track.

After you have selected the source and destination tracks, you should click *OK* to confirm you requirements, or you can click on the *Cancel* button to exit from the procedure.

Copying Tracks is only possible with tracks of a similar nature, i.e. MIDI or audio tracks.

You can reverse the actions you have taken with the use of the *undo* function.

Track Swap

This function allows for the quick exchange of the complete contents of two tracks. The dialogue box is the same as the one for *Copying Tracks.*

To the left there is a list field for the selection of the first track.

To the right there is a list field for the selection of the second track.

Once the selection of the two tracks that are to be exchanged has been made, you need to confirm the action required by clicking on the *OK* button, or click on the *Cancel* button to stop the action.

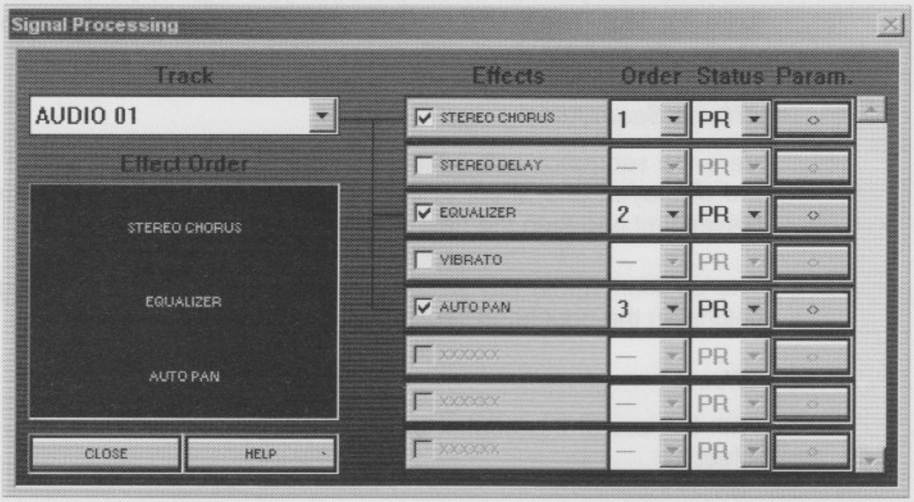
Swapping Tracks is only available for the exchange of tracks of a similar nature, i.e. MIDI or audio tracks.

This option can always be reversed with the use of the *undo* function.

Signal Processing

If you activate the *Tracks/Signal Processing* command, then the relevant dialogue box will appear on the screen. Here, the selected effects will be applied to the selected audio track in real time.

The DATA BECKER Music Centre will accept up to 16 effects, which can be selected directly from this dialogue box.



Track: AUDIO 01

Effect Order:
STEREO CHORUS
EQUALIZER
AUTO PAN

Effects	Order	Status	Param.
☑ STEREO CHORUS	1	PR	◇
☐ STEREO DELAY	—	PR	◇
☑ EQUALIZER	2	PR	◇
☐ VIBRATO	—	PR	◇
☑ AUTO PAN	3	PR	◇
☐ XXXXXX	—	PR	◇
☐ XXXXXX	—	PR	◇
☐ XXXXXX	—	PR	◇

Each of the effects is identified through the *.qsp* ending. These should be installed on the hard drive in the main directory for the DATA BECKER Music Centre. If more than 16 effects are available, then you will only be able to gain access to the first 16 in sequence. As the effects operate in real time on the contents of the audio tracks, then this means that the effects do not need to be saved in the track itself. This means that your audio file will remain unchanged, and you can simply switch each effect on and off one after another, for example to sample each of the effects.

The DATA BECKER Music Centre will as a default be supplied with five of the standard effects for the real time enhancements of audio elements (WAVE):

- Auto Pan
- Stereo Chorus
- Stereo Delay
- Vibrato

Within the dialogue box you will find the following regions and icons:

Track

In the list box you can select the track you require, on to which the effect is to be applied. The DATA BECKER Music Centre can handle up to 16 tracks at one, *Audio 01* to *Audio 16*.

Effects Sequence

Here the sequence with which the effects are to be performed on the track are displayed (the effect at the top of the list will always claim priority, i.e. played first and then the next one, etc).

The position within this effects sequence can be made through the *Order* column in the right hand section of the dialogue box.

Effects

With the use of this control box you can activate or de-activate the relevant effect.

Order

In this list field you will establish the position (priority) with which the effect should have in the sequence (*1* is actioned first, then *2* follows on, and so on).

Note: The effects priorities are at their most effective when all of the effects being used have the same status of PR *or* PO.

Status

Here you will select if the relevant track should have its volume or balance controlled before *(PR)* or after *(PO)* the effects.

If *PR* (pre, before the control) is selected, then the volume and balance control for that track, will be applied after the effects.

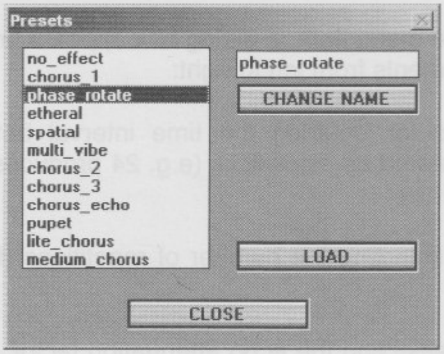
If you select *PO* (post, after the control) then the volume and balance control for that track, will be applied before the effects.

If you define some of the effects as *PR* and some of the effects are defined as *PO*, then you will find the following happens:

- *PR* effects are worked on first,
- Then the volume and balance settings are applied,
- Then the *PO* effects are worked on.

Param. (Access to the Effects pre settings)

One click on this icon opens the dialogue box with which you can make the individual settings possibilities for each of the effects. Here you can load and change the pre settings.



Each of the contained effects has its own default setting, which you can change by clicking on the relevant name (i.e. *Rotate Phase* with the *STEREO CHORUS* effect) and then finally activate by clicking on the *Load* icon.

The pre-set name can be made to one of your own choice. To do this you need to click on the *Change name* icon, and then enter the new name that you want to use in the field provided.

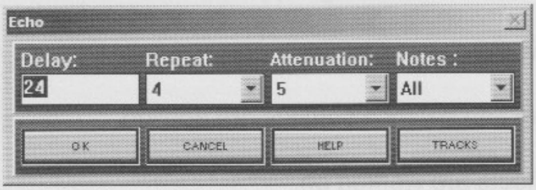
When changing the effects, it is not possible to gain further access to the *Control* window until you close the *Effects* window.

MIDI Effect Generator

Each of the MIDI effects has its own dialog box in which you can make the appropriate settings. The Tracks button is common to all of the following dialog boxes. It displays a list of tracks for you to select and edit.

In each of the dialog boxes you can click the OK button or CANCEL if you do not want to continue with what you are doing. You can also undo each of these steps with the Edit/Undo function.

Echo



Delay: 24
Repeat: 4
Attenuation: 5
Notes : All

This functions allows you to create a MIDI echo on one or more tracks within the section defined by the locators. The MIDI echo is produced by repeating and gradually attenuating the notes on a track.

The result is an echo, which is just as good as the effect produced by an electronic echo generator.

Once you have selected the menu item, a dialog box appears on the screen containing the following elements from left to right:

Interval	Editable field for entering the time interval between each repetition, entered as clock ticks (e.g. 24 produces an echo at quaver intervals)
Repetitions	List field for selecting the number of repetitions (feedback) in the echo.
Attenuation	List field for selecting the echo attenuation factor. The greater the factor, the more the volume of the repetitions will be attenuated - therefore the echo will gradually get weaker.
Notes	List field for selecting a particular note to which the echo is to be applied, or All (apply to all the notes).

This effect produces MIDI notes.

Fading

This function allows you to produce gradual volume attenuation (fading) on one or more tracks within the section defined by the locators.

The following settings can be made in the corresponding dialog box:

Direction	List field for selecting the direction of attenuation.

Fade in	From low to higher volume.

Fade out	From high to lower volume

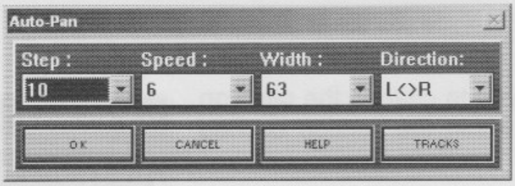
Intensity List field for selecting the intensity factor of the attenuation. The greater the factor, the greater the difference between the loud and soft volumes (this interval is also referred to as the “dynamics”).

This effect is used for the volume. It produces volume controller data.

Auto Pan

This function allows you to change the stereo balance (“stereo panorama”, hence the name “pan”) within the section defined by the locators.

The following settings can be made in the corresponding dialog box:


Auto-Pan

Step : 10

Speed : 6

Width : 63

Direction: L<>R

Step List field for selecting the variation in value between two MIDI controller messages for the balance. The greater the value, the quicker the sound “drifts” from left to right or vice versa.

Speed List field for selecting the time between two balance changes in clock ticks.

Width List field for selecting the width of the stereo space. The greater the value, the more distant the sound becomes from the centre.

Direction List box for selecting the direction of the effect.

L <> R	From left to right and back again
L > R	From left to right
R > L	From right to left
L > M	From left to the middle
M > R	From right to the middle

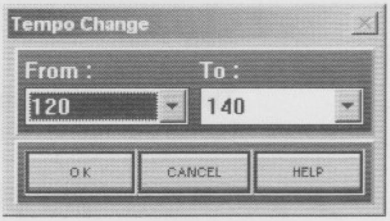
This effect produces balance controller data.

Tempo Change

This function allows you to produce a gradual tempo change on the MASTER track within the section defined by the locators.

The following settings can be made in the corresponding dialog box:

From	List field for selecting the start tempo
To	List field for selecting the end tempo



From : 120

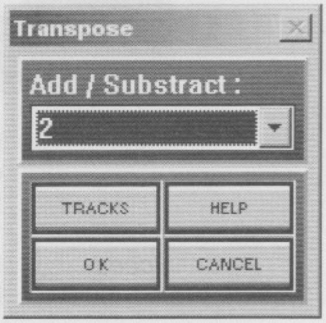
To : 140

This effect produces non MIDI events.

Transpose

This function allows you to change the pitch on one or more tracks within the section defined by the locators.

Once you have selected the menu, a dialog box appears on the screen with a list field entitled Add/Subtract which you can use to change the pitch in semitones.

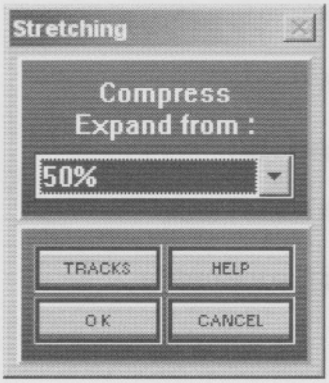


Add / Substract : 2

This effect changes the note pitch.

Time Stretching

This function allows you to stretch or compromise the duration and position of the event (time stretching) on one or more tracks within the section defined by the locators.



Compress Expand from : 50%

The result is that the tempo stays the same but the sequence of events played by the DATA BECKER Music Centre slows down or speeds up. This can be very useful if you want to change the time of a piece of music.

Example: a piece of music written in 4/4 time can be converted to 12/8 time using the time stretching function. This is done by selecting a factor of 50 % as the parameter (in 12/8 time, a time period lasts one and a half times as long as in 4/4 time, = + 50 %).

Once you have selected the menu, a dialog box appears on the screen. In the list field entitled *Compress/Expand from* you can select a value from (50 % to 200 %).

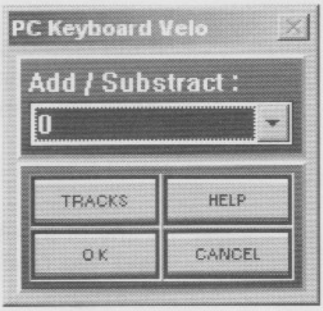
This effect changes the position and length of the notes.

Velocity

This function allows you to change the touch dynamics (individual volume) of the notes on one or more tracks within the section defined by the locators.

Once you have selected the menu, a dialog box appears on the screen with a list field entitled Add/Subtract which you can use to select the value for the touch dynamics.

This effect changes the touch dynamics (individual volume) of the individual notes.



PC Keyboard Velo

Add / Substract : 0

Options Menu

MIDI setup

All the basic program settings relating to the MIDI part are made in the dialog box *MIDI setup.*

The DATA BECKER Music Centre can manage one MIDI input port and two MIDI output ports. In the list field MIDI in port you can select a MIDI input, i.e. the connection where the Music Centre will receive MIDI data. If, for example, you are using an external MIDI keyboard, you need to select the *external keyboard* option from the list.

The list field MIDI out port (A) allows you to select your first MIDI output (A port). The list field MIDI out port (B) allows you to select your second MIDI output (B port).

The DATA BECKER Music Centre can manage two MIDI outputs (A and B).

Note: This list field only displays drivers which have been installed via the drivers icon in the Windows control panel (Windows 3.1) or which are displayed in Windows 95 under Start/Settings/Control panel/Multimedia/Advanced.

Selecting the MIDI mode

The list fields Mode next to the list fields MIDI out port A and MIDI out port B allow you to select a MIDI mode for each MIDI port. You can select either GM-GS or XG if the sound card (or external sound module or synthesiser) assigned to the relevant port supports one of these two modes, or you can select None.

If you select any mode other than None, the dialog box GM/GS/XG will have to be available for this port and each time you start the DATA BECKER Music Centre/each time you load a seq file, MIDI parameters corresponding with this mode will have to be copied.

If the sound card (or synthesiser or external sound module) assigned to the port is neither GS nor XG compatible, you should stick to the mode None to avoid any unnecessary copying of commands to the device.

MIDI filters

If any of the check boxes for MIDI messages are enabled in the MIDI filters field, the DATA BECKER Music Centre will receive the corresponding MIDI messages.

If you use these filters properly (e.g. Chan Pressure disabled) they can prevent your MIDI system from recording MIDI messages which it cannot process. This saves your memory and the program does not waste time processing superfluous MIDI data.

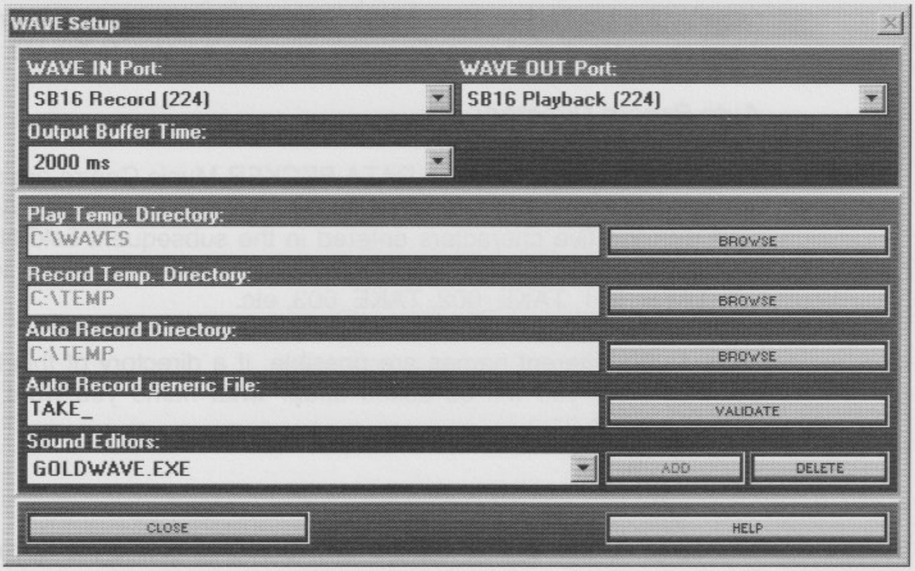
Example: You use a keyboard which transmits After Touch messages, although none of the sound generators on your MIDI system are able to receive and interpret these messages. What do you do: cancel receipt of these messages!

The parameters set in the MIDI set-up can be saved on the hard disk using the *Save set-up* function.

WAVE Setup

In the dialog box *WAVE set-up* you can make all the basic settings relating to the audio configuration (i.e. all settings relating to sampled sounds and also to sound cards).

The DATA BECKER Music Centre can manage one WAVE input port and one WAVE output port.



WAVE IN Port: SB16 Record (224)
WAVE OUT Port: SB16 Playback (224)
Output Buffer Time: 2000 ms
Play Temp. Directory: C:\WAVES
Record Temp. Directory: C:\TEMP
Auto Record Directory: C:\TEMP
Auto Record generic File: TAKE_
Sound Editors: GOLDWAVE.EXE

The list field *WAVE in port* allows you to select a connection for incoming audio data. The list field *WAVE out port* allows you to select a connection for outgoing audio data.

Note: This list field only displays drivers which have been installed via the drivers icon in the Windows control panel (Windows 3.1) or which are displayed in Windows 95 under Start/Settings/Control panel/Multimedia/ Advanced.

Output Buffer Time

In this list field you can define the size of the read buffer (between 400 ms and 3,000 ms), which you use to adjust the program to the different sound cards. The default setting is 2,000 ms. If errors occur when reading an audio file or when reading the mix, you should increase the value. On fast computers a smaller value may be used.

Play Temp. Directory

In the editable field *Play Temp.Directory* you can enter the path to be used by the DATA BECKER Music Centre to store the temporary files, which it sometimes has to create.

Record Temp. Directory

In the editable field *Record Temp. Directory* you can enter the path to be used by the DATA BECKER Music Centre to store the temporary files which it has to create during recording until you give a name to the file.

Auto Record Directory

All recordings made with the DATA BECKER Music Centre are stored under an automatically assigned name in the directory given here. All file names start with the five characters entered in the subsequent field Name of auto record file, followed by three index numbers which increase in sequence, e.g. TAKE_001, TAKE_002, TAKE_003, etc.

Thus 1,000 different names are possible. If a directory of this kind has not been entered, you will be asked under what name you want to save the recording each time.

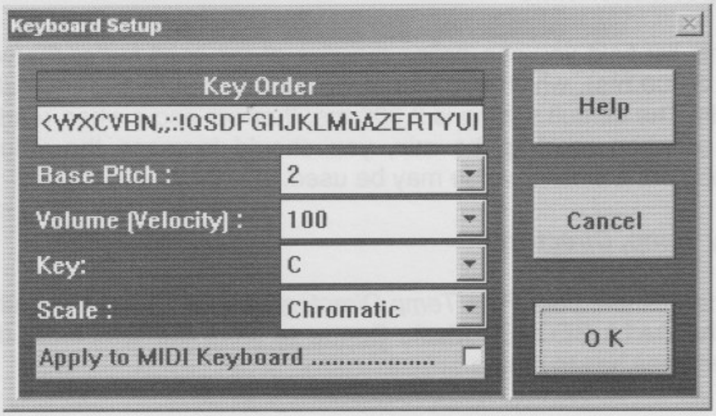
Sound Editors

The editable field *Sound Editors* allows you to define the access path and file name of your preferred sound editing program.

The parameters included in the WAVE setup are saved using the *Save Setup* function.

Keyboard Setup

In the dialog box *Keyboard Setup* you can make all the basic settings relating to the keyboard (PC as well as MIDI). Therefore you can also “play the piano” on your PC keyboard.



Keyboard Setup

Key Order

<WXCVBN,;:!QSDFGHJKLMùAZERTYUI

Base Pitch : 2

Volume (Velocity) : 100

Key: C

Scale : Chromatic

Apply to MIDI Keyboard .... ☐

Arrangement of keys

The field *Key Order* gives you the key sequence of your computer keyboard (in the form of a row of characters) with which you can control the notes. Each character corresponds to key on a piano keyboard.

To enter a new row of characters or to change the current row, enter the new characters that you want the program to recognise one by one using your computer keyboard (max. 48 characters, any more won't be acknowledged).

TIP *The arrangement of the characters is very important and defines the pitch of the notes (the nearer the character is to the beginning of the line, the lower the note it produces).*

Select the chromatic scale before you start working on the character row, otherwise you may find that the current scale will change the way the notes are played.

We recommend that you enter the alphabetical characters (A-Z) in capitals, i.e. with the [Shift] key down.

Base Pitch

In the list field *Base Pitch* you can define which root octave is to be used when you play the notes on your computer keyboard (on a piano this would be middle C, C4). The higher the value, the higher the notes played by the computer keyboard.

Volume (Velocity)

In the list field *Volume (Velocity)* you can enter the volume for the notes played by your computer keyboard.

The higher the value, the louder the notes played by the computer keyboard.

Key

In the list field *Key* you can enter the key to be used when you play the notes on your computer keyboard.

Scale

In the list field *Scale* you can define special scales to be used when you play the notes on your computer keyboard.

You can choose from the most common scales used in so-called classical music.

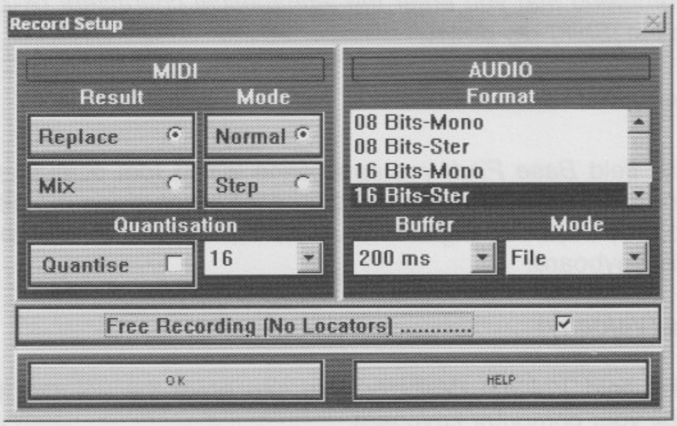
Apply to MIDI Keyboard

With the check box *Apply to MIDI Keyboard*, the parameters set for the computer keyboard (entered under key and scale) will also be enabled or disabled for your MIDI keyboard.

If the option is enabled and you own a MIDI keyboard which is connected to the MIDI port of your PC, the keyboard will be able to use the above named keys and scale. To be able to control the computer from your MIDI keyboard you do however have to enable the function *MIDI THRU*. To do this, the *THRU* button in the *Controls* window must be switched on (green display).

Record Setup

In the dialog box *Record Setup* you can make all the basic settings relating to how MIDI and audio data are saved.



MIDI
Result: Replace ● Mix ○
Mode: Normal ● Step ○
Quantisation: Quantise ☐ 16

AUDIO
Format: 08 Bits-Mono, 08 Bits-Ster, 16 Bits-Mono, 16 Bits-Ster (selected)
Buffer: 200 ms
Mode: File

Free Recording (No Locators) .... ☑

Result (MIDI only)

Using the option fields *Replace* and *Mix* you can define what is to be done with the MIDI data that has been recorded.

If you choose *Replace*, the save operation will delete all data previously recorded on the track. If you choose *Mix* the save operation will mix any data previously recorded on the track being saved with the new data.

Mode (MIDI only)

The option fields *Normal* and *Step* define how the MIDI data is to be recorded.

The *Normal* mode records in the same way as a conventional cassette recorder. The recording position moves at a constant speed and MIDI data will be recorded until the *Stop* button is pressed.

In the *Step* mode you record the music step by step. The recording position only moves forward a step when all the notes played have been "released" again. In this way you can input entire chords: press the first key and hold it down, then add the second and keep it down and then the third ... the step won't be recorded until you finally release all the keys.

The step size used in this mode (that means the note length to be recorded in each case) is defined by the quantize value. The values that can be selected from the list go from 1 (a semibreve) to 64 (a hemidemisemiquaver) point values (numbers which are followed by a point) and ternary values (numbers which are followed by a t).

Quantize (MIDI only)

With the Quantize check box quantization takes place during recording, which means that all MIDI events received during recording will be automatically quantized (the timing of the music will be more precise).

The quantization value (i.e. the note length taken for quantization) is selected from the same list field as is used to set the step size in the Step mode.

Unlike the Quantize function, which is accessed via the Edit menu, here you cannot set the type or maximum quantization interval.

Format (audio data only)

This function allows you to select the recording format. The sampling rate is always 44,100 kHz. The following options are available:

- 8 bit mono
- 8 bit stereo
- 16 bit mono
- 16 bit stereo

Two additional formats, 2 x mono 8 bit and 2 x mono 16 bit allow you to record a piece of music as two separate mono files on two separate audio tracks. You can therefore edit these tracks individually.

The format cannot be changed during a recording.

Buffer (audio data only)

The user can choose a recording buffer of between 50 and 200 ms depending on the sound card used by the device. If errors occur when recording in 16 bit stereo, you should try increasing the buffer value. The default value is 100 ms. The more powerful the sound card, the smaller the buffer size can be.

Mode (audio data only)

Using this function you can define whether the audio recording should be made “direct to disk” (file mode) or in the memory (memory mode). The working memory may be more flexible, but you will need quite a lot of memory for a whole “take” (a recording), as one minute audio in 16 bit stereo with a sampling rate of 44.1 kHz (= CD quality) requires 10 MB space.

Free Recording

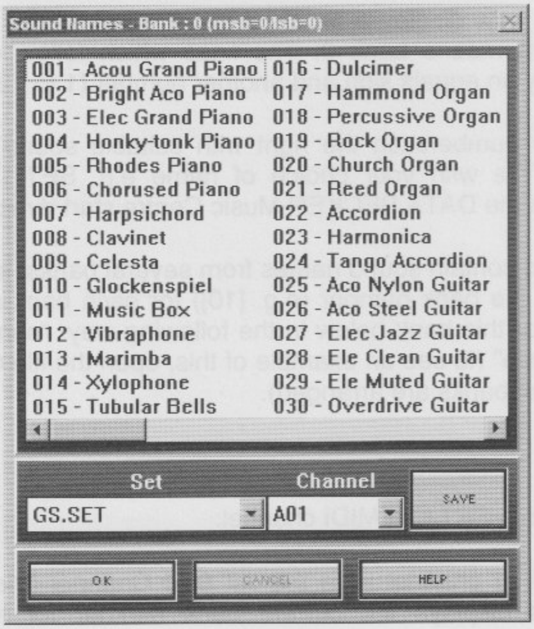
If the option *Free Recording (no locators)* is disabled, recording will only take place in the section between the two locators. In this way you can just change individual parts of a piece of music.

If the option is enabled (default setting), recording will take place from the moment you press the Rec button to when you press the Stop button, irrespective of any locators that may have been set.

Recording only takes place on the active track.

Sound Names

The dialog box *Sound Names* allows you to change a list of sound names and their assignment to a MIDI channel.



Sound Names - Bank : 0 (msb=0/lsb=0)

001 - Acou Grand Piano
002 - Bright Aco Piano
003 - Elec Grand Piano
004 - Honky-tonk Piano
005 - Rhodes Piano
006 - Chorused Piano
007 - Harpsichord
008 - Clavinet
009 - Celesta
010 - Glockenspiel
011 - Music Box
012 - Vibraphone
013 - Marimba
014 - Xylophone
015 - Tubular Bells
016 - Dulcimer
017 - Hammond Organ
018 - Percussive Organ
019 - Rock Organ
020 - Church Organ
021 - Reed Organ
022 - Accordion
023 - Harmonica
024 - Tango Accordion
025 - Aco Nylon Guitar
026 - Aco Steel Guitar
027 - Elec Jazz Guitar
028 - Ele Clean Guitar
029 - Ele Muted Guitar
030 - Overdrive Guitar

Set: GS.SET
Channel: A01

A list of sound names is called a SET in the DATA BECKER Music Centre. Each of the 32 channels (A01 to B16) can have its own SET.

Thanks to these SETs, the program is able to display the names of the sounds selected in the Mixing desk window. That is a lot more pleasant to look at than the sound numbers alone.

The SET files (extension .set) have to be saved in the subdirectory Sets in the DATA BECKER Music Centre start directory, so that the program can load them each time it is run and can also find them later if one needs to be changed.

As the MIDI standard permits 16,384 so-called sound banks and 128 programs per sound bank, each SET can contain up to 16,384 sections with 128 names each.

Creating a new SET

Run a simple text editor such as the Windows editor (can be found under Start/Program/Accessories in Windows 95) and load the Default.set file into it, which you can find in the subdirectory Sets in the DATA BECKER Music Centre start directory.

The text editor will now display a list. In the first line you will see a "0" in brackets ([0]) which means bank 0. The lines which follow consist of a number, followed by an equals sign and another number (1 to 128).

Simply replace the numbers on the right with suitable sound names and save the list in a file with your choice of name e.g. SET-1.SET in the subdirectory Sets in the DATA BECKER Music Centre start directory.

If you want a SET to contain sound names from several banks, simply create a new section with the bank number (e.g. [10]) for each bank and to enter the sound names for this bank below in the following way: "number (from 1 to 128) = sound name" (to see an example of this, open the file GS.SET and see how the different banks are arranged).

Assigning a SET

If you want to assign a SET to a MIDI channel:

- Select the desired channel from the list field Channel (the title of the window always displays the current bank number for the selected channel).
- Select the SET which you want to assign to this channel from the list field Set.

Changing a SET

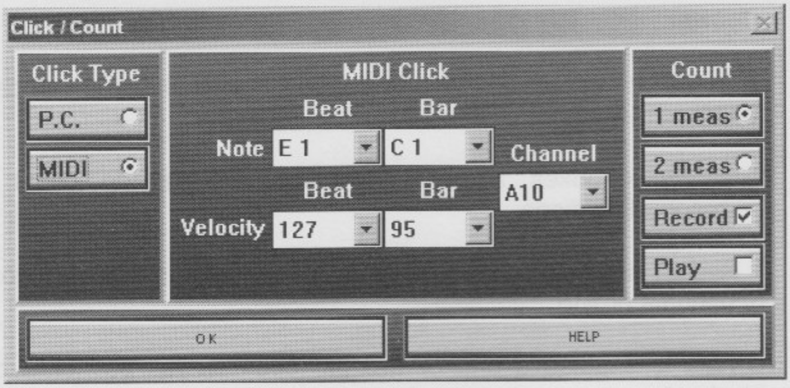
To change a SET, e.g. change a list name, select a channel which uses this SET from the list field *Channel* which will put the list up on the screen.

To change a list name, double-click the name. An editable field will pop up, in which you can enter the new sound name. Confirm by clicking OK.

Once a SET has been changed you can update the associated file on the hard disk by clicking the Save button.

Click/Count

The general parameters for the DATA BECKER Music Centre metronome and count in facility are set in the dialog box Click/Count.



Click / Count

Click Type
P.C. ○
MIDI ●

MIDI Click
Note: Beat E 1, Bar C 1
Velocity: Beat 127, Bar 95
Channel A10

Count
1 meas ●
2 meas ○
Record ☑
Play ☐

Click Type

Using the option fields *PC* and *MIDI* in the field *Click Type* you can define the metronome type to be used.

If you choose *PC* the loudspeaker on your computer will be used. If you choose *MIDI* the sound of the metronome will be produced via MIDI.

MIDI Click

The section *MIDI Click* allows you to set the MIDI metronome.

- The list field *Beat* in the *Note* line allows you to select a note value for each beat in the bar.
- The list field *Bar* in the *Note* line allows you to select a note value for the first beat in a bar.
- The list field *Beat* in the *Velocity* line allows you to select touch dynamics (volume) for each beat in the bar.
- The list field *Bar* in the *Velocity* line allows you to select touch dynamics (volume) for the first beat in the bar.
- The list field Channel allows you to select a MIDI channel for the MIDI metronome.

With MIDI metronomes you can therefore make the first beat in a bar louder (emphasise it) by entering a greater volume in the Bar field than in the Beat field. You can also make the first beat of a bar more obvious by using other notes (e.g. higher notes).

Count

With the option fields *1 bar* and *2 bars* in the *Count* field you can select the length of the count in.

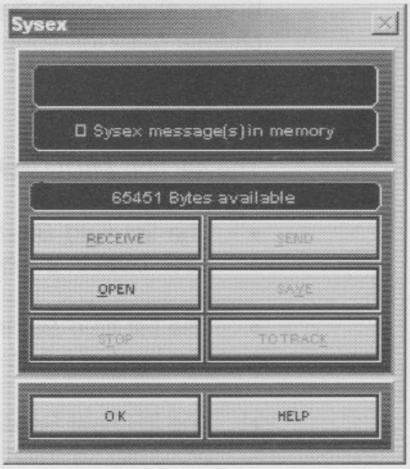
The check boxes *Record* and *Play* activate the count in for the corresponding mode.

If Record is enabled there will be a one or two bar count in prior to the start of each recording.

If Play is enabled a one or two bar count in will be heard before every playback.

The two options can be used at the same time.

Sysex



0 Sysex message(s)in memory

65451 Bytes available

The dialog box Sysex allows you to receive, transmit, save and load "System Exclusives" (abbreviated to Sysex) on the MIDI devices.

Receive

If you click the *RECEIVE* button you are preparing the DATA BECKER Music Centre to receive Sysex messages. The program will now expect a data transfer from a MIDI device.

Once all the desired data has been correctly received from the device, the top field in the dialog box will display the number of received messages, as well as how much memory space is still available for further data.

64 KB of temporary storage is available to save Sysex messages. You can only receive as many messages as this storage is able to hold.

Stop

You can cancel the receipt or transfer of data at any time by clicking the *STOP* button. You will have to use this button if you have received all the data from your MIDI devices, so that other Sysex messages cannot be received by mistake.

Save

By clicking the *SAVE* button you can save the Sysex messages currently available in the memory onto hard disk. Sysex files carry the extension .syx.

Open

By clicking the *OPEN* button you can reload Sysex messages which have been previously saved on disk.

Send

If you click the *SEND* button the program will transfer any Sysex messages currently in the memory of your MIDI devices.

To track

Large Sysex packets cannot be received during a normal recording or sent when carrying out a normal piece of music. The DATA BECKER Music Centre can however send short Sysex messages whilst a piece of music is being carried out as normal, but these must be relatively small (less than 1 KB).

In this case the messages can be saved as Sysex events on the master track of the DATA BECKER Music Centre using the function *TO TRACK* (for a description of the Sysex events, see the chapter “Events window”).

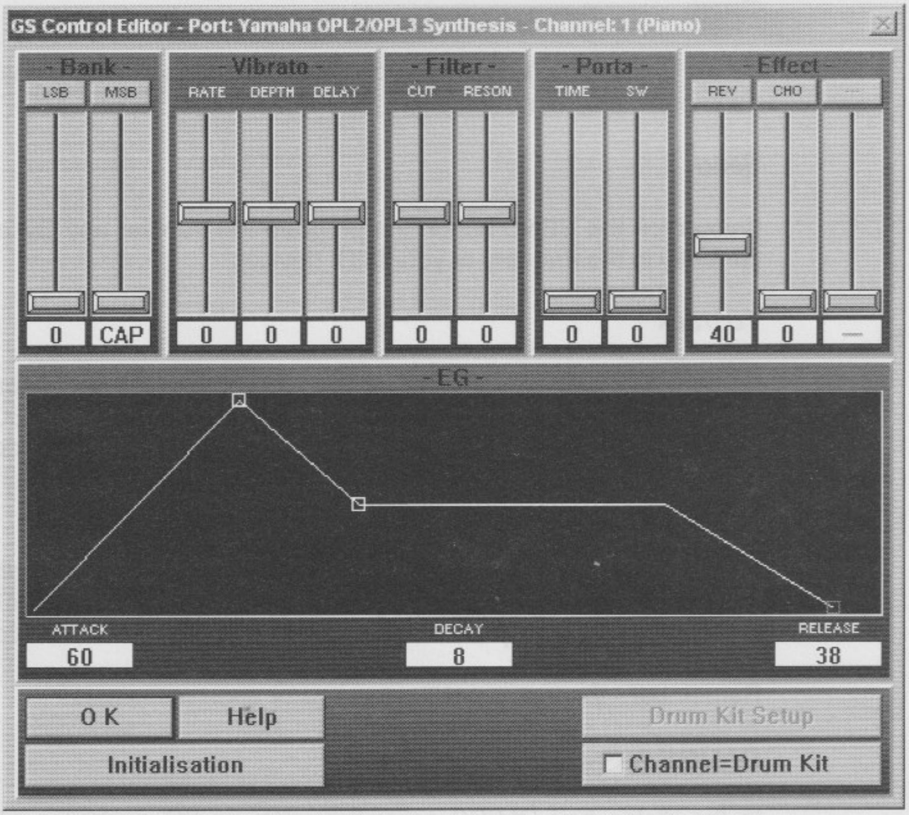
Remember - the function will only transfer short messages.

GM/GS/XG

In the dialog box GM/GS controller editor or XG controller editor you can change the parameters for GM/GS or XG sound generators. If your sound cards/MIDI modules are not completely GM/GS or XG-compatible or only contain one single sound bank, these parameters will not be relevant to you.

The dialog box GM/GS/XG is only available if the active track is assigned to a MIDI channel of a MIDI port (see MIDI set-up) defined as GS or XG (whichever is relevant). You therefore need to check that the active track is also a MIDI track.

The main dialog box GS (or XG) controller editor, which always appears first when you call up a function, allows you to change certain parameters for the sound of the active track by using the MIDI controller messages for GS or XG devices. The parameters edited in this field are global parameters for a piece of music (current value 0). They are saved in the initialising file Qrtzam.ini when you use the Save set-up function, so that a basic configuration is defined every time the program is run. In addition to this however, they are saved in each .seq music file with the piece's data, so that the parameters can be found again when you load a piece of music.



GS Control Editor - Port: Yamaha OPL2/OPL3 Synthesis - Channel: 1 (Piano)

LSB 0
MSB CAP
RATE 0
DEPTH 0
DELAY 0
CUT 0
RESON 0
TIME 0
SW 0
REV 40
CHO 0
--- —
ATTACK 60
DECAY 8
RELEASE 38
☐ Channel=Drum Kit

In this way you can change the sound bank, the vibrato, the tone (filter), the level envelope (EG) and the portamento (how the sounds glide into one another) on the active track.

Each time you change a parameter a Controller type MIDI message is sent to your sound card or MIDI device.

Parameters Most of the GS/XG control parameters are adjusted by a fader (slide control). Above the fader you will see the name of the parameter and under it the current value. To change the value, just click the fader with the mouse, hold the mouse button down and drag the fader upwards to increase the value or downwards to decrease it. The value of the fader currently being used (red frame around the fader element) can also be changed by using the up and down arrow keys.

Envelope (EG) Some GS/XG parameters are displayed as an envelope (visually displayed as interconnected lines), below which the values associated with the envelope can be found. An envelope describes the sound progression using the parameters *Attack*, *Decay* and *Release.*

To change parameters shown in this way, you need only click one of the small squares where two lines meet, hold down the mouse button and move the mouse pointer to the left to increase the value or to the right to decrease it.

You can also change the value of the currently active square (red frame) with the left and right arrow keys.

Initialisation Using the *Initialisation* button you can reset all the parameters in the dialog field to their default values.

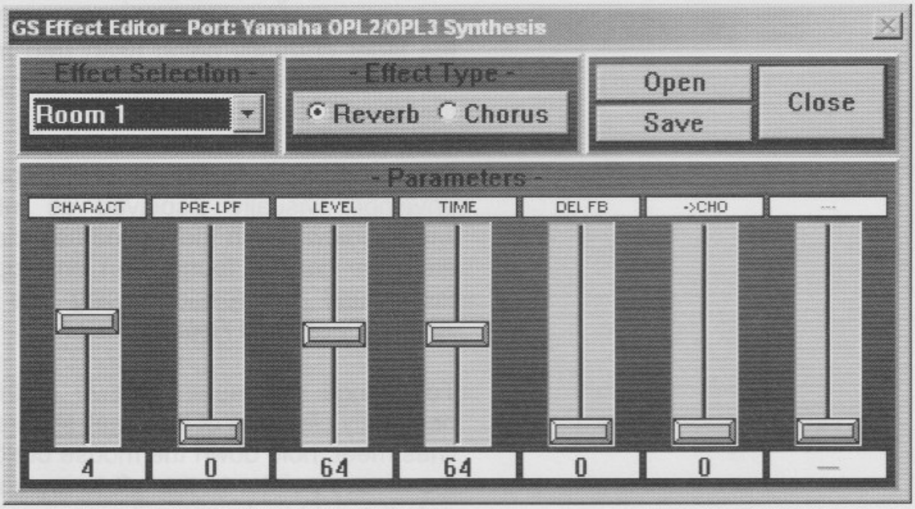
REV Using the *REV* button in the Effects field you can access the window GS effects editor or XG effects editor (depending on the mode you are in) to edit the parameters for the general reverb effect.

CHO Using the *CHO* button you can access the window GS effects editor or XG effects editor (depending on the mode you are in) to edit the parameters for the general chorus effect.

VAR Using the *VAR* button you can access the window XG effects editor to edit the parameters for the general variations effect in the relevant sound generator (not available in GS mode).

Other effects parameters for GS

If you click one of the buttons *REV* or *CHO* in the Effects field of the dialog box GS/XG controller editor, you will open another dialog box with detailed settings.



GS Effect Editor - Port: Yamaha OPL2/OPL3 Synthesis

- Effect Selection -

Room 1

- Effect Type -

● Reverb ○ Chorus

- Parameters -

CHARACT	PRE-LPF	LEVEL	TIME	DEL FB	->CHO	---
4	0	64	64	0	0	—

The dialog box GS effects editor allows you to change the parameters of GM/GS sound generators.

Some pseudo GS devices may not react to all the change commands for the values of the parameters given in the dialog box.

In general, the effect and its strength (parameter LEVEL) are set to the minimum value.

Effect Selection	The list field *Effect Selection* displays the type of effect being used and allows you to change it. Hall and chorus effects have different lists.
Effect Type	The two option fields *Reverb* and *Chorus* allow you to select the effect type for which the parameters are displayed in the dialog box. If the effect type is changed, the whole field changes.
Parameters (1-8) (9-16)	The field *Parameters* contains faders which represent the parameters of the effect currently selected. You can change the value of each parameter by moving the fader up or down.

Save

Using the *Save* button you can save the effects parameters shown in the dialog box using a file selection box so that they can be easily reused. GS effects are saved with the extension .gsf.

Open

The Open button allows you to load the effects parameters carrying the extension .gsf using the file selection box. If the program displays the message Incompatible effects type! when trying to open an effects file, the effect saved in the file does not correspond with the effects type selected in the dialog box (Reverb or Chorus).

Other effects parameters for XG

If you click one of the *REV*, *CHO* or *VAR* buttons in the Effects field in the dialog box XG controller editor, you will open another dialog box with detailed settings: the dialog box XG effects editor allows you to change the parameters for XG sound generators.

Effect Selection

The list field *Effect Selection* displays the type of the effect being used and allows you to change it. Hall, chorus and variation effects have different lists.

Effect Type

The three option fields *REV*, *CHO* and *VAR* allow you to select the effect type for which the parameters are displayed in the dialog box. If the effect type is changed, the whole field changes.

Parameters

The fields *Parameters* 1-8 and *Parameters* 9-16 contain faders which represent the parameters of the effect currently selected. You can change the value of each parameter by moving the fader up or down.

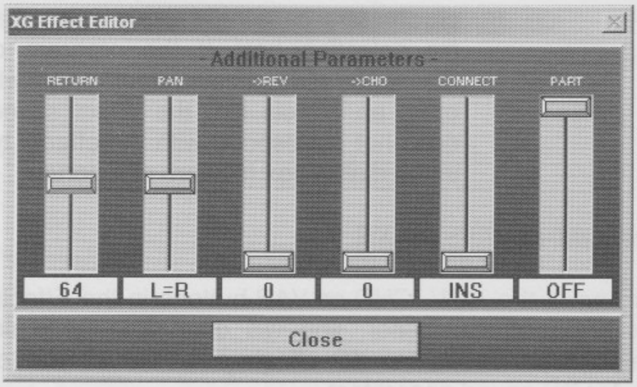
Save

Using the *Save* button you can save the effects parameters shown in the dialog box using a file selection box so that they can be easily reused. XG effects are saved with the extension .xgf.

Open

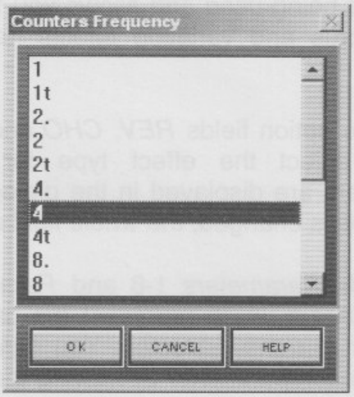
The *Open* button allows you to load the effects parameters carrying the extension .xgf using the file selection box. If the program displays the message Incompatible effects type! when trying to open an effects file, the effect saved in the file does not correspond with the effects type selected in the dialog box (Reverb, Chorus or Variation).

Effects+ The *Effects+* button allows access to a dialog box with additional parameters for the XG mode.



RETURN	PAN	->REV	->CHO	CONNECT	PART
64	L=R	0	0	INS	OFF

Update Counters Frequency



This option opens a dialog box in which the refresh frequency for the cursor positions and counter can be set on the basis of subdividing the beats in a bar.

If you select 1 the screen display will be refreshed with every clock tick. You may notice that your computer has problems recording data while also trying to update the screen, if this is the case then select a higher value from the list so that your computer will dedicate more effort to recording and less to updating the screen display.

Chase Controllers

If the menu item Chase Controllers is enabled the program will follow all of the controller and Sysex messages on the tracks, even if you change position within a piece of music.

If you skip to another position within the track then Music Centre will go to the beginning of the music and chase all control messages up to the point which is currently selected. This will ensure that the music sounds as if it had been played from the beginning and all control changes had been issued.

As an example of this, if a piece of music contained a pitch bend control change between location 20.0.1 and 25.0.1 and you selected the position 21.0.1 and pressed play: If Chase Controllers was not selected then you would not hear the pitch bend effect because the event to turn on the pitch bend was issued at a point before 21.0.1.

Caution: if a piece of music is overloaded with these sorts of messages, it can take quite a while to read all the events! In this case, disable the menu item.

Audio Element Tempo Update

Using this function you can select how audio elements are locked in the track during a tempo change.

If this function is not switched on (menu entry not highlighted with a tick) the start time for the audio element remains the same when the tempo of the music is changed.

If this function is switched on (menu entry highlighted) the start time for the audio element will be recalculated and you will notice that the audio element's entry within the bar will not change.

Timer Resolution

The Timer Resolution submenu allows you to set the precision for the DATA BECKER Music Centre clock. This makes it possible to adjust the program to the speed of the computer on which it is being run (from very high to very low).

If your computer only has limited speed and the clock is too precise, the piece of music loaded into the program may not be played properly as the load is too great on the processor (tempo fluctuations, missing MIDI events, etc.).

If these problems occur regularly in the DATA BECKER Music Centre, it is highly likely that the resolution is too high. Try to reduce it by selecting a lower value from the list.

Control Menu

Auto Return

If the option Auto Return is enabled (menu command highlighted), the piece of music currently in the DATA BECKER Music Centre will automatically be rewound to the position of the left locator each time you stop the playback or recording.

Auto Stop

If the option Auto Stop is enabled (menu command highlighted), playback/recording in the DATA BECKER Music Centre will automatically stop when the right locator's position has been reached.

Active Track

This function gives you a dialog box containing a list of all tracks in the DATA BECKER Music Centre with which you can select the active track.

Select the desired track from the list and close the field with the *OK* button or simply double-click the name of the track that is to be the active track.

You may also set the active track by clicking on the title of the track in the Tracks window.

Set Left Locator

Allows you to change the position of the left locator using an entry field.

Set Right Locator

Allows you to change the position of the right locator using an entry field.

Set Position

Allows you to change the position of the piece of music currently loaded in the DATA BECKER Music Centre using an entry field.

Goto Zero

Moves the cursor from the current position to the zero position (01:01:00, beginning of first bar). The hotkey for this function is the [0] key on the keyboard.

Fast Rewind

Allows you to position the currently loaded piece of music at the left locator.

Fast Forward

Allows you to position the currently loaded piece of music at the right locator.

Stop

Stops the piece of music from being played.

Play

Starts playing the piece of music.

Record

Starts recording. Recording type and mode are defined using *Record Set-up*.

Click

Enables/disables the metronome. The metronome can be set using the Click/Count option.

Count

Enables/disables the count in function. The count in can be set using the Click/Count option.

Loop

Enables/disables the continuous play (loop) of the piece of music between the locators.

MIDI THRU

Enables/disables the MIDI THRU function.

Cues Menu

This window permits fast access to the first twelve cues set in the Cues window for the current piece of music.

This makes it possible to access sections of music quickly, even if the Cues window is closed or hidden.

To set a cue:

- Select the position in the current piece of music (e.g. 0002:001:00)
- Open the Cues window

- Click on the *Catch* button, a new cue will be added to the list.

You can jump directly to a defined cue using the keyboard by pressing the keys [Shift]+[F1] to [Shift]+[F8]. [Shift]+[F1] will jump to the first cue.

Functions Menu

The individual submenus in the Functions menu are only active if the appropriate window is also open. Each command in these submenus corresponds to a function which can also be accessed directly via the appropriate window.

The commands in the Functions menu do however allow you to access these functions, even if the appropriate window is not visible (e.g. hidden by another window). The following windows can be opened/closed or accessed via the Functions menu:

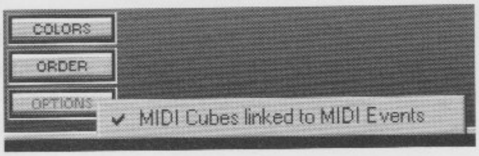
- Mixer
- Events
- Cues
- Keyboard
- Juke box
- Score
- Grid
- Controllers
- Tracks

There are of course a range of different settings within the different windows, which you can also access using the Functions menu.

- *Mixer window*
  Track name, sound, track on/off, solo, Xpose (transpose), channel, volume, balance
- *Events window*
  Sel > Loc, Change, Add, Delete, Filters
- *Cues window*
  Sel > Loc, Change, Capture, Add, Delete

- *Keyboard window*
  Mouse Range, Notes
- *Juke box window*
  Load, Save, Change, Add, Delete, Play, Stop
- *Score window*
  Transpose, Quantize, Print
- *Grid window*
  Names, Grid, Order, Follow
- *Controllers window*
  Controller#
- *Tracks window*
  Grid, Vertical Zoom +/-, Horizontal Zoom +/-, Set Order, Set Colors

If you click the *OPTIONS* button in the Tracks window, the following function appears on the display:



If this function is enabled (ticked) any changes that you make in another window will be copied to this window and the display will be updated.

If this function is disabled, any changes that are made will not be transferred into the display until they are manually inserted in the Tracks window.

Mixer

Track name

Here you can change the name of a track (max. 16 characters). The track names are saved together with the piece of music.

Sound

Allows you to change the sound for the active track. A dialogue box will appear from which you may choose the desired sound.

Track on/off

Allows you to enable or disable recording and playback of the active track.

Solo

Switches the track in question to Solo (on or off depending on previous status). If a track is switched to Solo, all other tracks will be muted and you can only hear the contents of this track. This function works on the active track.

Xpose (transpose)

Allows you to transpose (raise or drop) the value of the notes contained on the track. MIDI notes are converted in real-time (as they are played). No changes are made to the data contained on the track (unlike with the Transpose function which is accessed from the *Tracks* menu) or to the MIDI device receiving the messages on the channel assigned to the track. The transposing settings are made in a dialog box containing a list of the permissible transposition values (in semitones). Select the desired value from the list and close the dialog box with the OK button, or simply double-click the desired value. This function works on the active track.

Channel

Allows you to allocate a MIDI channel to a MIDI track. The MIDI events contained on this track will then be transmitted to the corresponding MIDI channel. Allocation takes place using a dialog box containing a list of the permissible MIDI channels.

The program can manage two MIDI out ports at the same time. The channels are numbered A01 to A16 and B01 to B16 (16 possible channels for each MIDI out port: A and B). Select the desired value from the list and close the field with the OK button, or simply double-click the desired value. This function works on the active track.

Volume

Allows you to set the volume of the MIDI device or audio port receiving the MIDI events or audio elements on the channel assigned to the track. The volume is set using a dialog box containing a list of the permissible volume values. Select the desired value from the list and close the dialog box with the OK button, or simply double-click the desired value. This function works on the active track.

Balance

Allows you to change the balance (stereo position) of the MIDI device or audio port receiving the MIDI events/audio elements on the channel assigned to the track. The balance is set using a dialog box containing a list of the permissible values. Select the desired value from the list and close the dialog box with the OK button, or simply double-click the desired value. This function works on the active track.

Events

Select > Loc

Allows you to position the locators in line with the entries selected in the Events window.

Example: You have selected ten entries from the list in the Events window:

- The position for the first one is: 0001/01/00
- The position for the last one is: 0003/01/00

If you now click the Select > Loc button,

- The left locator will be set to 0001/01/00
- The right locator will be set to 0003/01/00.

To be able to position the two locators, at least two events must be selected.

Change

Allows you to change the event selected last from the list in the Events window. If the event is a MIDI event, you can change its parameters (position, type, etc.) in the dialog box, which automatically appears on the screen when the function is accessed. If the event is a WAVE file, the dialog box *Modify Audio Element* appears with the *Change* button.

If you click this button the DATA BECKER Music Centre will run the editor program defined by you in the WAVE set-up (sound editor) dialog box so that you can edit the WAVE file corresponding to the event, i.e. the waveform behind the audio data. Once you have made the changes, confirm with the OK button or cancel the procedure with the CANCEL button.

Add

Allows you to add an event at any position in relation to other events already on the track. If you want to add an event to a MIDI track, you can set the parameters for the element to be added (position, type, etc.) in the dialog box which automatically appears on the screen when the function is accessed. If you want to add an event to an audio track, you can select an audio element (a WAVE file) in the file selection box on display. Confirm with the OK button or cancel with the CANCEL button.

Delete

Allows you to delete all the selected events from the list in the Events window.

Filters

Allows you to filter the MIDI events displayed in the list in the Events window. The dialog box *View filters*, which appears when you access the function, contains a check box for each valid event type. Use this box to enable/disable the corresponding event type for the display. If the field is crossed, the corresponding event type will be displayed. If it is not crossed, it will not be displayed.

Cues

Sel > Loc

Allows you to position the locator in line with the cues selected from the list in the Cues window.

Example: You have selected ten cues from the list:

- The position for the first one is: 0001/01/00
- The position for the last one is: 0003/01/00

If you click the *Sel > Loc* button,

- The left locator will be positioned at 0001/01/00
- The right locator at 0003/01/00.

To be able to position the two locators at least two cues must be selected.

Change

Allows you to change the cue selected from the list in the Cues window. You can change the parameters (position, title, comments) for the cue in the dialog box which automatically appears on the screen when the function is accessed. Once you have made the changes confirm with the OK button or cancel with the CANCEL button.

Catch

Allows you to add a cue whilst the piece of music is being played. The cue is added to the list of cues. Its position is the current position of the piece of music. It receives a default title and comments. To change the position, title or comments of the new cue, use the *Change* function.

Add

Allows you to add a cue to the cues already contained in the list. The new cue will be automatically added to the end of the list. It will receive a default title and comments. To change the position, title or comments of the new cue, use the *Change* function.

Delete

Allows you to delete all of the cues selected from the list in the Cues window.

Keyboard

Mouse range

Allows you to adjust the note range for the notes shown on the virtual keyboard in the Keyboard window and the notes played when the keyboard is clicked using the mouse. The note range is selected in a dialog box, which appears immediately the function is accessed, and which contains a list of the permissible note range entries (e.g. C0 - C6 or C3 to G8). Select the desired note range and confirm with the *OK* button, or cancel the procedure with the *CANCEL* button.

Note *To be able to "play" on the screen keyboard using the mouse, the active track has to be a MIDI track!*

Notes

Allows you to display or hide the note names and numbers on the virtual keys in the Keyboard window.

Juke box

Load

Allows you to import a juke box configuration file which was previously saved using the *Save* function. This file is selected using a file selection box which appears when the function is accessed. A Juke box configuration file carries the extension .jkb.

Save

Allows you to save the current configuration in the Juke box window (list of pieces and the corresponding parameters). You can define a directory and a name for the file using the list field that appears when the function is accessed.

Change

Allows you to change the parameters for the piece of music selected from the list in the Juke box window. You can change the parameters (index, file name, count in, interval, mode) in the dialog box which automatically appears on the screen when the function is accessed. Once you have made the changes, confirm with the *OK* button or cancel the procedure with the *CANCEL* button.

Add

Allows you to add a piece of music to the pieces listed in the Juke box window. When you access the function a file selection box appears on the screen which filters out all the files carrying the extension .seq. Select the desired piece of music and confirm with the *OK* button or cancel the procedure with the *CANCEL* button. The new piece of music will be automatically added to the end of the list with default parameters. Use the *Change* function to change the parameters for the additional piece of music.

Delete

Allows you to delete all the entries selected from the list in the Juke box window.

Play

Starts to play back the pieces of music listed in the Juke box window.

Stop

Stops the Juke box being played.

Score

Transpose

Allows you to transpose (change the scale) of the notes on the stave (in octaves). The transposition in the score is purely visual and does not affect the real notes at all. This function is very useful because the two staves cannot display the entire MIDI note range. Use this function to view a piece of music where some notes are too high or too low. The transposition value is selected in a dialog box, which appears immediately after you access the function and contains a list of permissible values (-3 to +3 octaves). Once you have selected the transposition value, confirm with the *OK* button or cancel the procedure with the *CANCEL* button

Quantize

This option allows you to adjust the display of the notes in the score. The quantization in the score is purely visual and does not affect the way the notes are played at all. The value is selected in a dialog box, which appears immediately after you access the function and contains a list of permissible values (semibreve -> 1/32). Once you have selected the desired value, confirm with the *OK* button or cancel the procedure with the *CANCEL* button.

Print

Allows you to print the contents of the active track between the locators onto paper in the form of a score with two staves. The print function uses the system's printer parameters, as well as the printer defined as the default printer in Windows. If the system's printer parameters need to be changed before printing, use the Windows printer settings.

Grid

Names

This function can only be used if the active track is a MIDI track. It allows you to open a dialog field, from which you can select a list of note names, which are then displayed on the far left edge of the Grid window. This function is very practical if you want to check a drum track, as every note in a MIDI drum set stands for a drum instrument (base drum, hi-hat, tom-tom, cymbals, etc.). The dialog box list displays all the file names with the extension .drm that are in the subdirectory Sets in the DATA BECKER Music Centre directory. The files carrying the .drm extension are plain text files in a pre-written format which can contain up to 128 note names.

Create a new list of note names:

1. Run a text editor, such as Windows notepad, and load the file default.drm from the subdirectory Sets in the DATA BECKER Music Centre directory.

2. The text editor will then display a list of entries consisting of one number followed by an equals sign and another number (0 to 127).

3. Replace the right-hand numbers with the desired note names and save the list that you have thus created in a file with a name of your choice and the extension .drm in the subdirectory Sets in the DATA BECKER Music Centre directory.

4. From now on, you can access your list using the Name function in the Grid window.

Using the *SEQUENCE* button in the Grid window you can select the sequence in which the names are displayed to the left of the grid, i.e. either from the lowest to the highest, or vice versa.

Grid

This function can only be used if the active track is a MIDI track. It allows you to change the grid width (which represents a certain time period) in the Grid window. The grid value is selected in a dialog box, which appears immediately after the function has been accessed and contains the permissible values. The value range goes from 1 (semibreve) to 32 (demisemiquaver) and also includes point values (numbers which are followed by a point) and ternary values (numbers which are followed by a t). Once you have selected the value, confirm with the *OK* button or cancel the procedure with the *CANCEL* button.

Order

Using the *Order* button you can select whether the display runs from the lowest to the highest note, or vice versa.

Follow

The *Follow* button is used to switch on/off the automatic page tracking in the Grid window.

Controllers

Controller #

This function can only be used if the active track is a MIDI track. Here you can select from a list the MIDI event type that you want to be displayed in the MIDI controller window. All MIDI controllers are available, as well as Pitch Bend and After Touch events.

Tracks

Grid

This function allows you to change the grid division in the Tracks window. This can be useful in aligning yourself in relation to a bar or a specific beat within a bar. You can also click the *GRID* button in the Tracks window. A dialog box appears from which you can select a value from 1 to 64. This corresponds with the number of subdivisions that you want to make in your bar.

Verticle Zoom

This function reduces the line height of the tracks, so that you can fit more tracks onto the screen.

Verticle Zoom +

This function increases the line height of the tracks ,so that you can see the contents of a track more easily. However you cannot then see as many tracks all at once.

Horizontal Zoom

This function compresses the track width. In this way more beats can be displayed on the screen, for displaying a whole sequence for example.

Horizontal Zoom +

This function expands the track width, so that you can inspect parts of the sequence in more detail (for making finer alignments or setting a locator more precisely for example).

Set Order

Using this function you can define the order in which the tracks appear on the screen. You may for example like to have the first three tracks assigned to audio and the following one to MIDI.

Description of window: On the left you will see two areas. One is called Tracks and bears the name of your track title, and on the right is the Sequence (order) area, which is numbered from 1 to 48 (the DATA BECKER Music Centre can manage 16 audio and 32 MIDI tracks).

If you select a track in the Tracks area, the current position in the sequence will be displayed in the Sequence area. Simply click another position to change the position of the marked track. You can also save the sequence created in this way as qto file and reload it later using the Load button.

Set Colors

Using this function you can set all the colors for the tracks window (colors of the grid lines, tracks etc.). If you click the INIT button, you can reset the color values to their default settings.

Windows menu

The following windows can be opened and closed via this menu:

- Mixer

- Events
- Cues
- Keyboard
- Juke box
- Score
- Grid
- Controllers
- Master Mixer
- Tracks

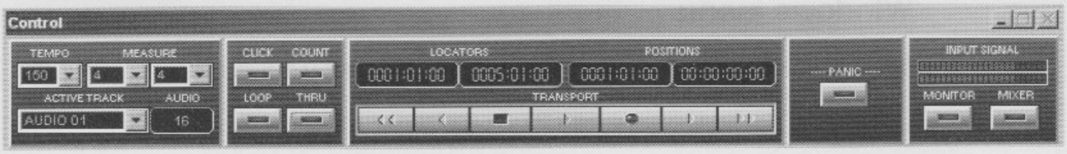
All open windows, except the Control window, can be closed by pressing [Ctrl] + [F4] or using the Close field at the top right (Windows 95) or via the keyboard. It is possible to cycle through the open windows for example to bring a hidden window to the front by pressing [Ctrl] + [F6].

The menu command *Placement* allows you to control the display and position of the windows even more easily.

Move left	Places the active window to the left of the main window
Move Up	Places the active window to the top of the main window
Move Right	Places the active window to the right of the main window
Move Down	Places the active window to the bottom of the main window
Optimise	Zooms the active window to full screen size

The list at the bottom of the menu shows which windows are open. To put a window in the foreground, just click its name or enter the corresponding number.

Control window


Control

TEMPO 150

MEASURE 4 4

ACTIVE TRACK AUDIO 01

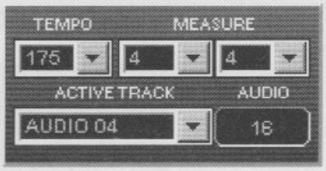
AUDIO 16

LOCATORS 0001:01:00 0005:01:00

POSITIONS 0001:01:00 00:00:00:00

The Control window displays and controls the transport functions for the sequencer (forwards, backwards, play, stop, etc.) and is also used to set certain global program parameters.

Tempo and bar


TEMPO 175

MEASURE 4 4

ACTIVE TRACK AUDIO 04

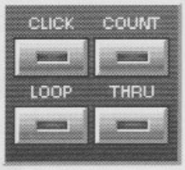
AUDIO 16

TEMPO	In the list field TEMPO you can set the basic tempo for the current piece.
MEASURE	Here you can set the measure for the piece. Select the counter from the left list field and the divider from the right list field.
ACTIVE TRACK	This list field allows you to display and select the active track.
AUDIO	In this field you can display the audio channels available in the DATA BECKER Music Centre.

The DATA BECKER Music Centre can manage up to 16 mono tracks (16 bit, 44.1 kHz). As soon as a mono element is used on a track, the display automatically reduces the number of free audio channels by one. In the same way it reduces the number by two if a stereo element is inserted on a track.

The DATA BECKER Music Centre will accept every possible combination, as long as they don't exceed the maximum possible number of audio channels (16), e.g. 8 mono plus 4 stereo tracks.

To be able to see at a glance whether an audio track contains a mono or stereo track, an extra code is displayed in the Tracks window in addition to the audio channel being used. 1 signifies a mono track and 2 is a stereo track. If more resources are required than are available, you will see an error message.

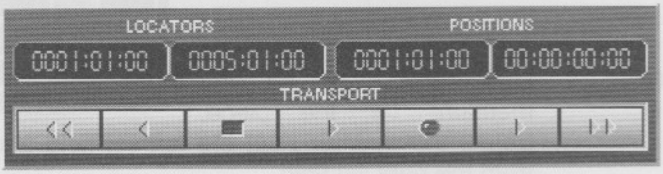


CLICK	Click this button to enable/disable the metronome.
COUNT	Click this button to enable/disable the count in.
LOOP	Click this button to enable/disable the continuous play (loop) between the locators.

THRU Click this button to enable/disable the MIDI THRU function.

If you use an external keyboard, this field must be enabled so that the program acknowledges the keyboard.

Locator and position displays



LOCATORS

Two fields lying next to one another indicate the position of the locators:

- The left field shows the left locator
- The right field shows the right locator.

You can change the position of the locators by means of an entry field in which you click the appropriate field.

POSITIONS

Two fields lying next to one another indicate the current position within the current piece of music:

- The left field in bar/time/clock ticks
- The right field in hours/minutes/seconds.

You can change the current position within the piece in the left field.

Transport buttons

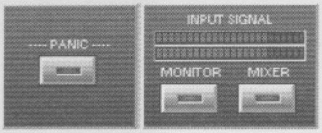
By clicking one of the seven buttons you can control the transport on the sequencer.

‹‹	The Fast rewind button allows you to quickly return to the left locator, or with a double-click, to the zero position.
‹	The Rewind button allows you to rewind (as long as the mouse button is held down).
›	The Forward button allows you to wind forward (as long as the mouse button is held down).

▶▶	The Fast forward button allows you to quickly go to the right locator position.
■	The Stop button (blue) stops the sequencer.
▶	The Play button (green) starts the sequencer.
●	The Record button (red) starts the recording.

Panic (notes OFF)

PANIC	This button allows you to re-initialise all MIDI channels in the event of an emergency by transmitting the MIDI commands “Note OFF” on each channel.

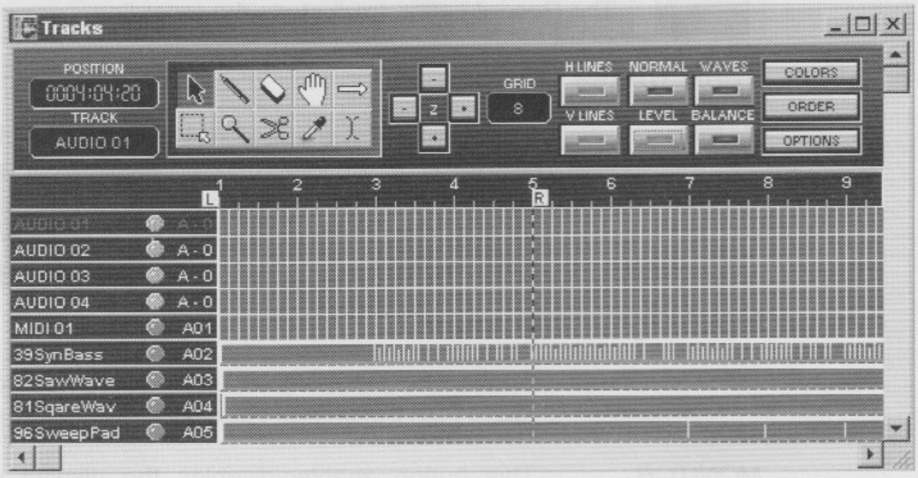


Input signal and mixer

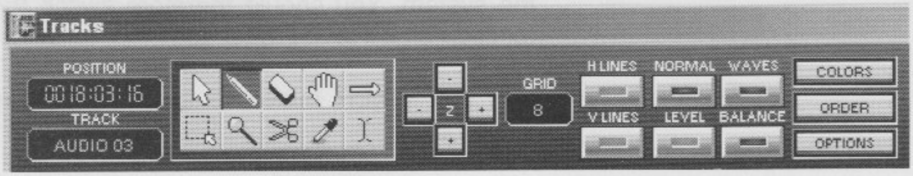
INPUT SIGNAL	Shows the input signal level during recording (only if MONITOR button has been pressed).
MONITOR	This button enables/disables the display of the input signal level as an LED column. Important: Do not leave the MONITOR display on all the time because this display occupies an input port and thus puts a strain on the system. You should therefore switch the MONITOR function off if it is not required.
MIXER	Use the MIXER button to access the Windows audio mixing desk.

Tracks window

The Tracks window allows you to put all your work up on the screen. Your MIDI and audio elements are shown as green rectangles.

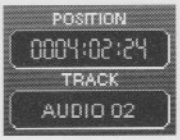


At the top of the window you will find the position displays, the toolbox and various buttons for adjusting the so-called editing grid below.



The individual elements will be covered in the following.

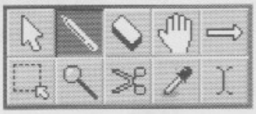
Position displays



POSITION	This field shows the current position of the mouse pointer. The display always takes the form of bars/beats/clock ticks.
TRACK	Shows the name of the track where the mouse pointer is located (= active track).

The toolbox

Tools If you click the tools you can edit the elements using the Add, Delete and Cut functions.



In the Tracks window, as in the other windows belonging to the Music Centre (Grid, Score, MIDI controller), you will always find a toolbox with a variety of tools for editing the musical material. Here is a brief overview of the tools in the Tracks window:

The Set Tool (mouse pointer icon). If you click the editing grid with the left mouse button the cursor automatically assumes this position, i.e. playback will return immediately to the position you have just clicked in the editing grid. This function can be used during playback.

The Add Tool (pen icon). Use this drawing pen to insert MIDI or audio elements at the point where you clicked:

- On a MIDI track - a blank MIDI element which remains blank until notes or controller values are recorded. The blank MIDI section inserted will be equal to the distance between the left and right locators.

- On an audio track - an audio element. A dialog box will pop up from which you can select a WAVE file for insertion.

The Delete Tool (eraser icon). A click with the left mouse button will delete the event or element currently located under the cursor.

The Limit Tool (brackets icon). Use this tool to position the locators. Click the left mouse button to position the left locator and the right mouse button for the right locator. As many editing functions take place between locators, you will probably need this tool quite a lot.

The Move Tool (hand icon). Click the left mouse button to drag an event horizontally (position) and vertically (track). Note: This only works between tracks of the same type, i.e. MIDI to MIDI or audio to audio. If you select one or more elements and hold down the [Ctrl] key on the keyboard whilst you drag, the element will automatically be copied and pasted into the new position. This is the quickest way to duplicate and produce a series of audio samples for example.

The Frame Tool. If this tool is selected you can select one or more elements (MIDI and audio) via the window by clicking and dragging with the mouse to a position of your choice.

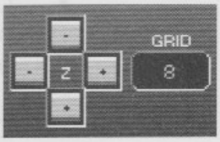
The Size Tool (arrow to right). If this tool is selected you can lengthen or shorten the playing time of a MIDI note or the length of an element by clicking the left mouse button (MIDI and audio elements only). This tool can not be used to increase the length of an element beyond its original length.

The Edit Tool (magnifying glass icon). If this tool is selected and you click the left mouse button when the mouse cursor is located on an element, an editing window will pop up. This window is different for MIDI and audio elements.

The Scissors Tool. If this tool is selected the element on which the cursor is currently located will be cut if you click the left mouse button. The cut section may be removed using the *Delete* Tool.

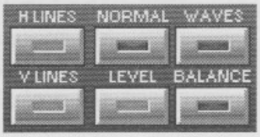
The Glue Tool (pipette icon). This tool is used to combine two MIDI elements into one single element. Simply click an element with the left mouse button to combine it with the one following.

Zoom and Grid



Zoom (Z)	The zoom function allows you to change the track display (the rectangles on the screen). You can zoom in vertical and horizontal directions.
Grid	This function allows you to change the display parameters for the grid.

Display mode

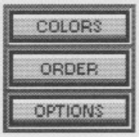


H LINES	To display a horizontal line between each track.
V LINES	To display a vertical line for each bar division selected in the GRID parameter in the window.
NORMAL	In the bar for audio signals - displays the names of your source file and element. In the bar for MIDI signals - displays the name allocated by you. If this bar has not been named, it automatically adopts the name of the track where it was originally located.
WAVES	Display for audio elements: Displays a graphical waveform within the bar. Display for MIDI elements: The start and duration of the MIDI.

LEVEL	Display for audio elements: The volume of the element. Display for MIDI elements: The start of touch dynamics for MIDI notes.
BALANCE	This option only applies to audio tracks and displays the panorama value (position in stereo picture) of the element on the screen.

Colors, sequence and options

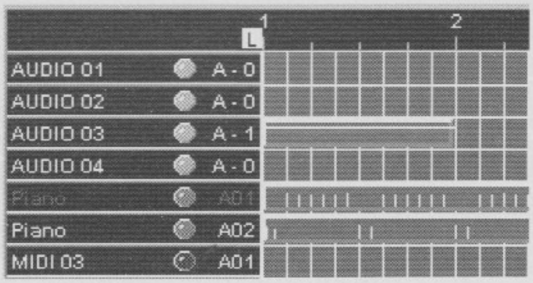
COLORS	Accesses a dialog box in which you can adjust the colors of the elements in the Tracks window.
ORDER	Produces a dialog box in which you can set the track arrangement within the grid.
OPTIONS	Use this option to update all windows at once. This option is ticked by default.



The Editing Grid

The Editing Grid can be considered the “heart” of the Music Centre. All MIDI and audio tracks can be displayed, positioned and edited here until you have achieved the desired mix.

It forms the graduated part of the window (like a typical ruler). The measured variables on this ruler are the bars. The exact way it is divided up depends on how the parameters have been set for the GRID.



Title line for the track

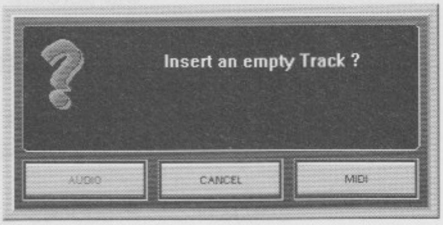
The title line for the track shows you the general status of a track:

1. The name of the track (e.g. Piano, Bass, Solo)

2. The status of the track (on/off) using a colored lamp. If it is illuminated the track is switched on. MIDI tracks have a green lamp and audio tracks a yellow one.

3. The output port and the channel assigned to the MIDI tracks (A01 to B16) or for audio tracks, just the output port (A), followed by the number of channels used for this audio track: 1 for mono, 2 for stereo.

Inserting a track



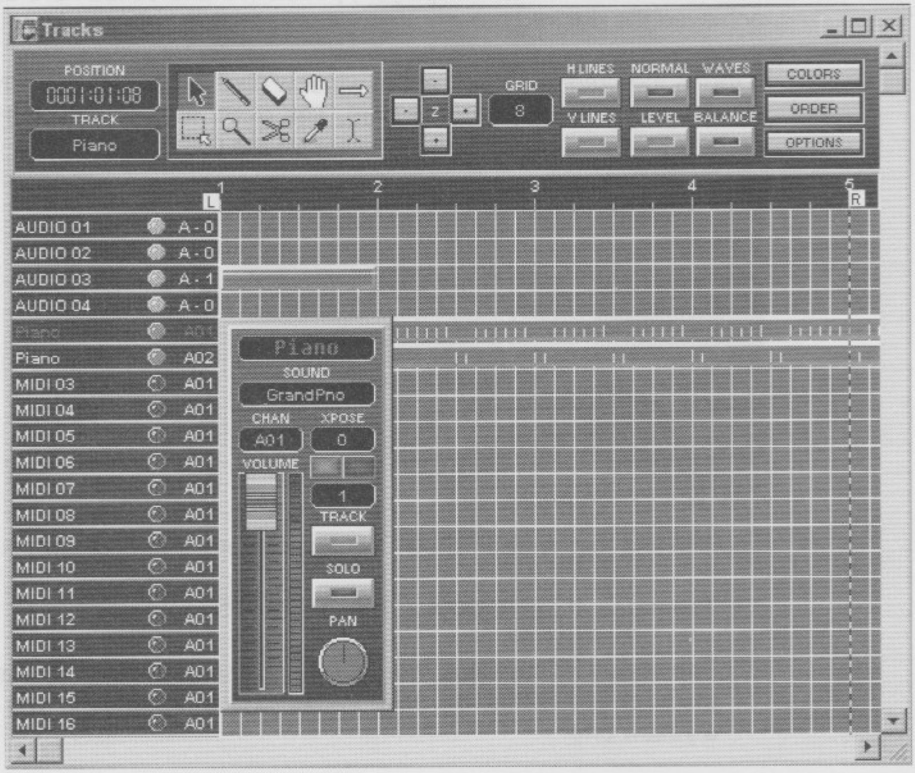
Insert an empty Track ?

If you want to insert a track you have to double-click the title line of the track with the left mouse button. A dialog box will appear enquiring whether you want to insert an Audio or MIDI track.

The first available (empty) track of the type requested will be inserted in front of the track that you clicked.

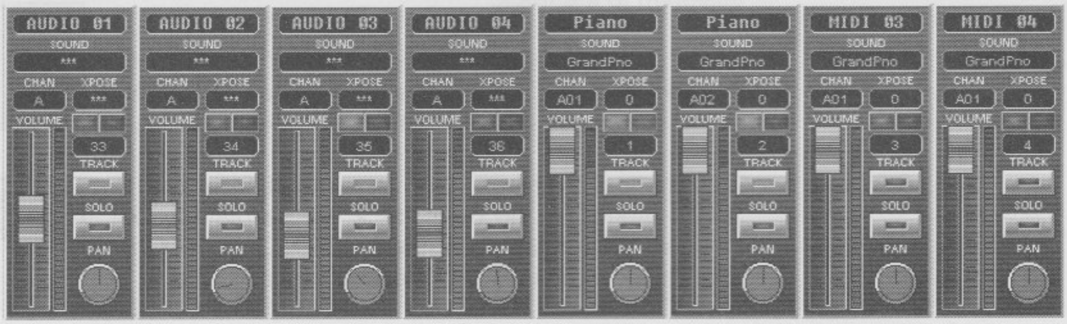
Accessing the mixing desk

To access the mixing desk section for a specific track, click the title line of the track with the right mouse button. The corresponding section of the mixing desk will open and you can change the parameters. To close the mixing desk section, simply click outside the dialog box.

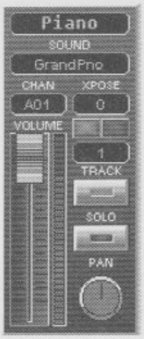


Mixing desk window

The Mixing desk window displays and controls the operation of each track on the DATA BECKER Music Centre in real-time (as on a traditional mixing desk). This is done by either converting the MIDI events contained on the tracks or by transmitting MIDI messages to the device (sound card/MIDI module) which receives the events on the MIDI channel assigned to this track.



Although audio tracks cannot contain any MIDI events, they can also be controlled from this window. In this case only the volume, balance, assignment of output port and enabling/disabling of the track can be controlled.

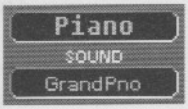
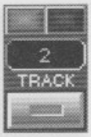
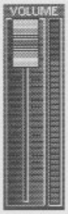


The mixing desk window is divided into vertical fields (sections) and each section controls its own track.

Up to eight tracks can be controlled and displayed at the same time (as long as the screen resolution on your monitor permits this, starting from a resolution of 800 x 600). To be able to see the other tracks as well, use the scroll bar at the bottom edge of the window.

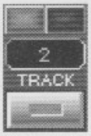
Each of the mixing desk sections contains fields or buttons which can be clicked to execute an operation.

Entry fields, faders and controllers

Track name	Here you can change the name of the track. The DATA BECKER Music Centre accepts up to 32 MIDI and 16 audio tracks. 
SOUND	Allows you to change the sound (sound patch) on the MIDI device which receives the MIDI events on the channel assigned to the track.
TRACK	If you click this button, the track will be muted. Click the (On) button to enable the track (green LED lights up) and click again to disable it (LED goes out), etc. 
SOLO	This button switches the corresponding track to SOLO mode, i.e. no other track will be played, just this one. Click again to cancel the SOLO mode. Only one track can be in SOLO mode at any one time.
XPOSE	Allows the notes contained on the track to be transposed (raised or lowered).
CHANNEL	Allows you to allocate a MIDI channel or audio port, to which the MIDI or audio events on the track will be transmitted.
VOLUME	This fader (slide control) allows you to set the volume for a track. The volume can be changed by clicking the fader and dragging it upwards/downwards with the mouse button held down. Every time the mouse is moved a MIDI volume message (controller 7) will be transmitted to the MIDI device connected to this track. 
PAN	Use this rotary control to change the balance

Displays

Each section of the mixing desk window also contains displays:



A small black box with a number tells you the track number. If you click this field with the left mouse button the track becomes “active”. When it is active, the red display lights up. If you click this field with the right mouse button you can access the editing window for the track in question via the context-sensitive menu.

With a MIDI track the windows for editing the active track contain:

- Events
- Keyboard
- Score
- Grid
- Controllers
- Sound Names

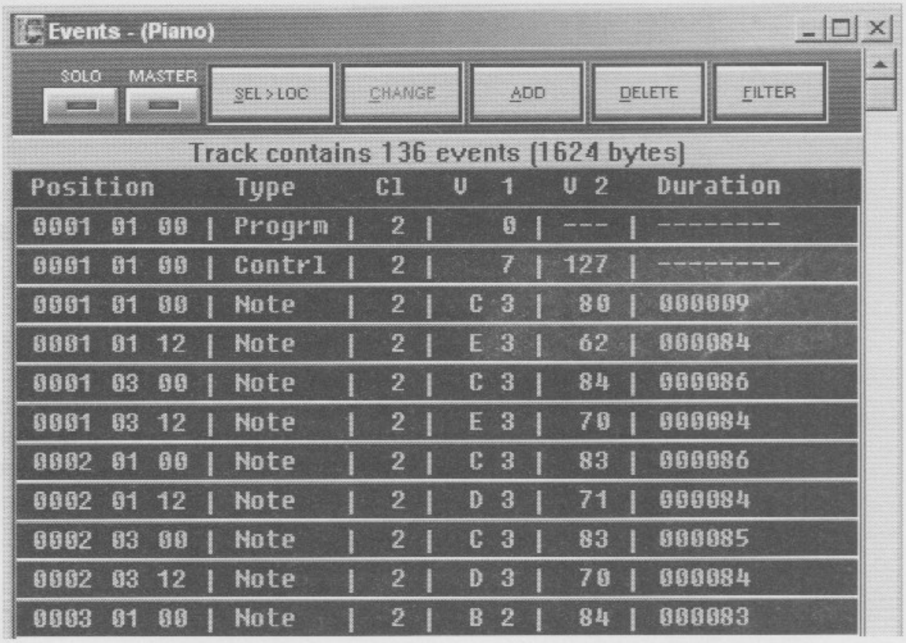
With an audio track the windows for editing the active track contain:

- Events
- GM/GS

A small green lamp shows whether the track corresponding to the section contains data. If it does, the lamp shines brightly. If not, it only glimmers. The active track is signified with a red lamp. If the track is active the lamp lights up, otherwise it only glimmers.

Events window

The Events window shows a list of all the MIDI or non-MIDI events, as well as audio elements on the active track.



Track contains 136 events [1624 bytes]

Position	Type	Cl	V 1	V 2	Duration
0001 01 00	Progrm	2	0	---	--------
0001 01 00	Contrl	2	7	127	--------
0001 01 00	Note	2	C 3	80	000009
0001 01 12	Note	2	E 3	62	000084
0001 03 00	Note	2	C 3	84	000086
0001 03 12	Note	2	E 3	70	000084
0002 01 00	Note	2	C 3	83	000086
0002 01 12	Note	2	D 3	71	000084
0002 03 00	Note	2	C 3	83	000085
0002 03 12	Note	2	D 3	70	000084
0003 01 00	Note	2	B 2	84	000083

Each entry in the list represents an event. If you click an event with the right button and the event is a note event, it will be played.

An event is described using the following parameters (from left to right):

MIDI event

1. Position in the form of: Bar/Time/Clock ticks (e.g. 0001 01 00).

2. Type (e.g. Note, Program change, Modulation, etc.)

3. Channel (variable meaning depending on the event type). If the event is a MIDI event, this is the original channel where the event was registered. If the event is a Sysex event, this is the MIDI out port to which the event data is transmitted (A or B).

4. Value 1 (variable depending on the event type)

Type Tempo	Touch dynamics for the tempo
Type Measure	Counter of bar type
Type Sysex	Volume of message (in bits)
Type Transposition (Xpose)	Transposition value
Type Track on/off (mute)	Either on (track active) or off (track muted)
Type Note	Pitch of note
Type Polly Pressure	Volume of note
Type Control Change	Control change number
Type Program Change	Program change
Type Pressure	After touch (renewed play whilst the keys are being held down)
Type Pitch Bend	Fine setting pitch bend value (sounds are “bent” using the pitch bend)

5. Value 2 (variable depending on the event type)

Type Tempo	Speed
Type Measure	Denominator for bar type
Type Sysex	Exclusive data for setting the sound generation
Type Transposition (Xpose)	Note pitch
Type Track on/off (mute)	Switches the track on/off
Type Note	Volume of note (velocity)
Type Polly Pressure	After touch
Type Control Change	Controller change
Type Program Change	Program change
Type Pressure	Pressure setting
Type Pitch Bend	Rough adjustment Pitch Bend value

6. Duration (Note type event) or marker of product to which the message is transmitted (Sysex type event).

Audio event

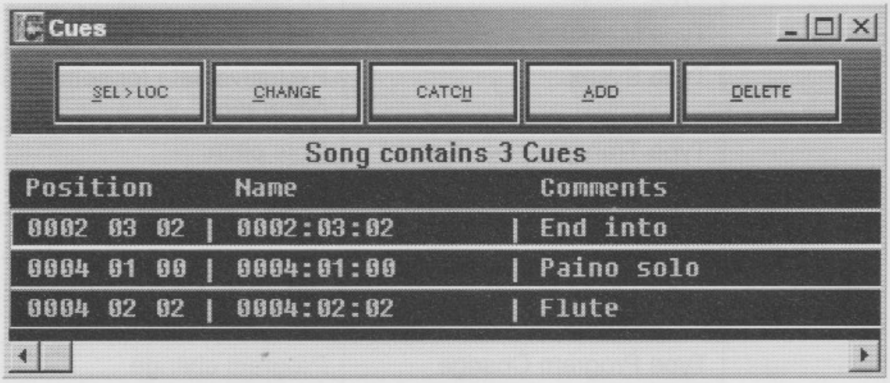
If the event is an audio event:

1. Position in the form of: Bar/time/clock ticks (e.g. 001 01 00)
2. Name of the source audio file (.wav)
3. Name of the audio element, if it has been defined (default setting: no name).
4. End position of audio element in the following form: Bar/time/clock ticks (e.g. 0007 02 31)

If you click an entry in the list with the right mouse button and this entry is a note event, the event will be played. If you double-click an entry in the list you can change this event using a dialog box. Highlighted entries can be deleted or used to position the locators.

Cues window

The Cues window lists all cues that you have set in the current piece.



Song contains 3 Cues

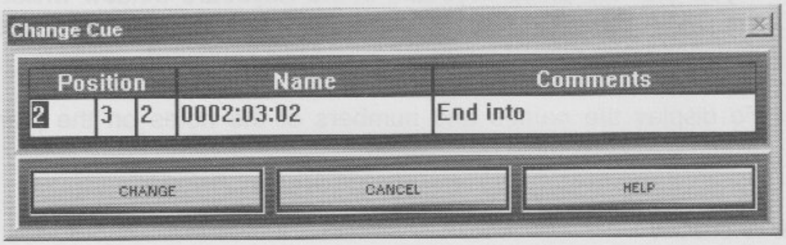
Position	Name	Comments
0002 03 02	0002:03:02	End into
0004 01 00	0004:01:00	Paino solo
0004 02 02	0004:02:02	Flute

Each entry in the list represents a cue. A cue consists of (from left to right):

1. Its position in the form of: Beat/time/clock ticks (e.g. 0001 01 00)
2. Its name, as given by you
3. Any comments that you may have added.

If you click an entry in the list with the right mouse button, this will automatically position the current piece of music at the position of the marker (very practical if you want to go to a particular section quickly).

If you double click an entry in the list you can change the cue using the appropriate dialog box:



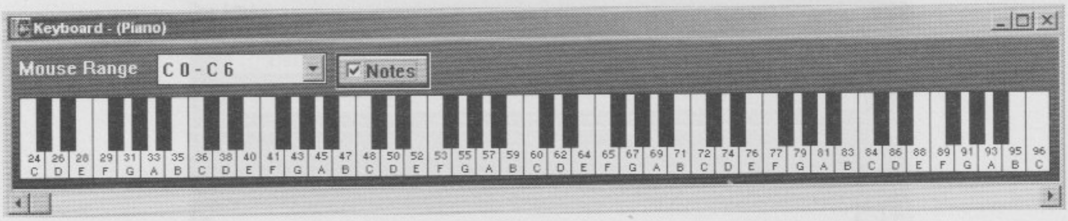
Change Cue

Position			Name	Comments
2	3	2	0002:03:02	End into

Entries selected in the Cues window (highlight with the mouse or with [Shift] + cursor keys) can be deleted or used as a base time for positioning the locator. You can add a marker by clicking the *ADD* or *CAPTURE* button.

Keyboard window

The Keyboard window shows a piano keyboard. You can follow the music as if it were being played on a piano.



Keyboard - (Piano)

Mouse Range C 0 - C 6

☑ Notes

The keyboard shown in this window can be used to play notes if you click the keys with the mouse.

During playback in the DATA BECKER Music Centre the notes played on the active track are displayed on the piano keyboard in the Keyboard window in real-time in the form of black squares.

If the active track is an audio track nothing will be displayed in the Keyboard window as these sorts of events cannot be saved on an audio track. You can play notes by clicking the piano keys in the Keyboard window with the left mouse button. With the Mouse range list field you can set the pitch:

1. Of the notes being played, if you have clicked the keyboard with the mouse
2. Of the notes on the screen, if the piece is being played by the DATA BECKER Music Centre.

If you click the piano keyboard in the Keyboard window whilst recording in the DATA BECKER Music Centre, the notes you play will be recorded as if they had been played on an external MIDI keyboard.

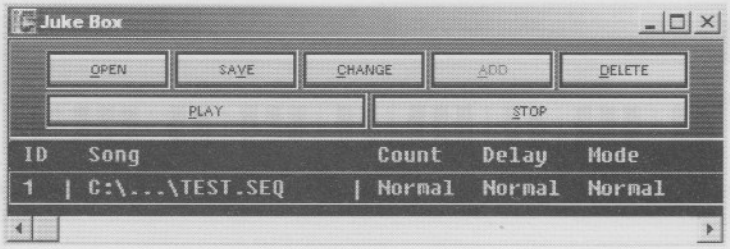
To display the names and numbers of the notes on the piano keys, the *Notes* checkbox must be enabled.

Juke box window

The Juke box window allows you to select several pieces of music to be played one after the other. Individual playback parameters can be set for each piece. The list of pieces will appear in the window.

Displaying the title

You can only play files of type .seq in the Juke box. Each entry in the list represents a piece of music.



ID	Song	Count	Delay	Mode
1	C:\...\TEST.SEQ	Normal	Normal	Normal

A piece of music is shown with the following parameters (from left to right):

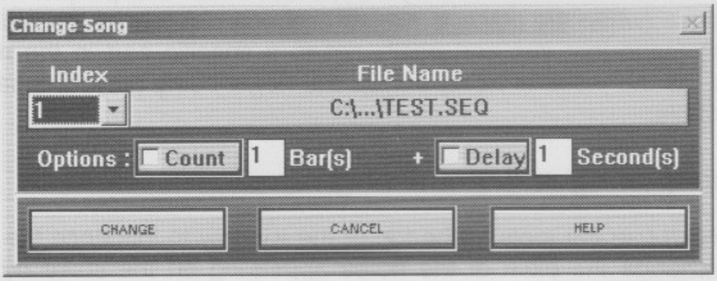
1. With its index (ID), i.e. its position in the list
2. Its file name
3. Its count in, which counts in the piece before the actual playback begins
4. Its interval, the interval between the end of the current piece and beginning of the next
5. The mode.

If you click an entry in the list with the right mouse button you will load the corresponding piece and it will be played (if the sequencer is operating).

If you click an entry in the list with the left mouse button, you are defining which piece is to be played first.

Changing the piece

If you double-click an entry in the list you can change the settings for that piece using the dialog box.



Index: 1

File Name: C:\...\TEST.SEQ

Options : ☐ Count 1 Bar(s) + ☐ Delay 1 Second(s)

Juke Box Buttons

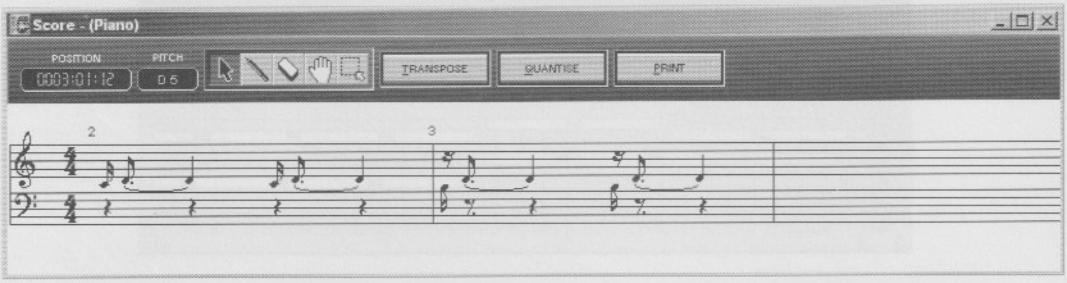
Highlighted entries can be deleted. You can add a piece of music to the list by clicking the Add button. You can start or stop a piece from being played using the Play or Stop buttons.

You can save the list of pieces selected in the Juke box window by clicking Save or reload a list of previously saved pieces by clicking Load.

Score window

Score display

The Score window allows you to display the notes contained in the active track in the form of a piano score (treble/bass clef).



POSITION: 0003:01:12

PITCH: D 5

If the active track is an audio track the window contains nothing, as the Score window is only used for MIDI events.

The score contains a variable number of bars depending on the quantization chosen. The POSITION field continually shows you the position of the mouse cursor if it is positioned over the score. The bar numbers displayed above the staves make it easier to keep your place in the piece of music.

Position display

This window is automatically refreshed when the position of the piece changes (when the piece is played or if you change the position manually). This means that you can easily get to a specific part in the music at any time. As the piece is being played the notes being played appear in red on the stave.

Transposing and quantizing

You can use the tools at the top of the window to influence the events. You can change the pitch of the notes appearing on the stave by clicking the *TRANSPOSE* button.

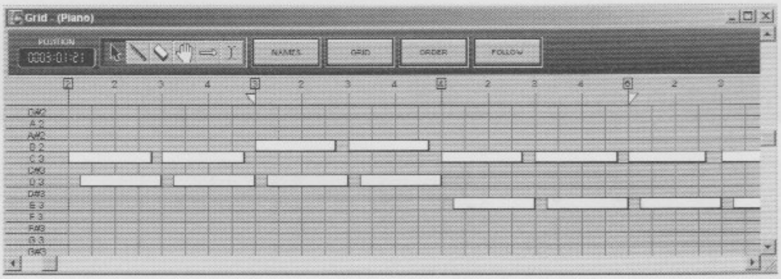
You can adjust the density of the display by clicking the *QUANTIZE* button.

Finally, you can print the score for the active track by clicking the *PRINT* button.

Grid window

Grid

The Grid window allows you to display the note events in the active track in the form of a grid (like the old perforated paper rolls on pianolas). This is a very practical way of changing existing note events on a track or simply presenting them on the screen.



If the active track is an audio track the window contains nothing, as this is used for MIDI events only.

In the Grid window, events are shown as white rectangles. Their width corresponds to the duration and their vertical position, their pitch. The vertical lines divide the window into even sections, where the width of these sections corresponds to a duration, which can be changed with the *GRID* function.

The rectangles in the first column on the left of the window can contain note values or in the case of a MIDI track for drums, the actual names of the percussion instruments.

Order

Using the Order button you can select whether the notes are displayed from the lowest to the highest, or vice versa.

Follow

The Follow button is used to enable/disable the function whereby the pages are automatically followed when the piece is playing.

Position display

The Position field continually shows you the position of the mouse cursor if it is positioned on the window. The bar numbers appear in the upper part of the grid so that you can see where you are at a glance.

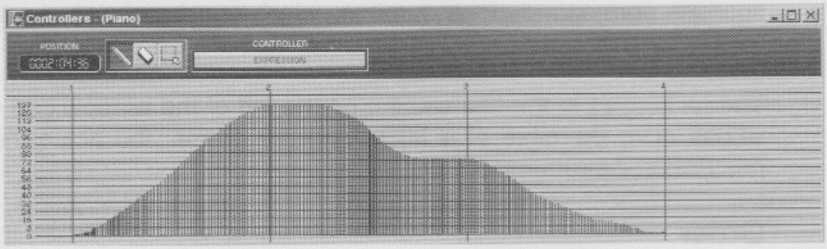
This window is automatically refreshed when the position of the piece changes (when the piece is played or if you change the position manually). As the piece is being played the notes being played appear with a black dot in the grid.

Toolbox

You can use the tools available at the top of the window to edit the events.

Controller window

The Controller window graphically displays the MIDI controller type events contained on the current track, events such as Pitch Bend and After Touch.



POSITION 0002:04:36

CONTROLLER EXPRESSION

If the active track is an audio track the window contains nothing, as this is only used for MIDI events.

Controller display

In the MIDI controller window the events are shown as vertical blue lines. Their height corresponds to the value of the associated controller, pitch bend or after touch and the horizontal position corresponds to the control position in terms of time.

The left side of the window contains numerical values (from 0 to 127).

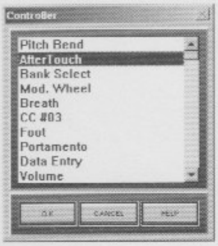
Position display

The Position field continually shows you the position of the mouse cursor if it is positioned on the window. The bar numbers appear in the upper part of the grid so that you can see where you are at a glance.

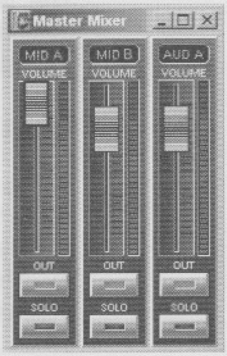
This window is automatically refreshed when the position of the piece changes (when the piece is played or if you change the position manually). This means that you can easily get to a specific part in the music at any time.

Controller selection

You can select the event type to be displayed by clicking the Controller button which always shows the current event type.



Master Mixer Window



Using the Main mixer you can enable/disable the available output ports in the DATA BECKER Music Centre or control the overall volume (2 MIDI ports A and B and 1 WAVE port A).

The overall volume on the MIDI ports is adjusted by simply dividing the touch dynamics whenever the DATA BECKER Music Centre is playing (and therefore has no effect on the volume of the amplifier or the MIDI volume on the corresponding sound generator).

On the other hand adjusting the overall volume on the WAVE ports is just like using the volume controls on your sound card.

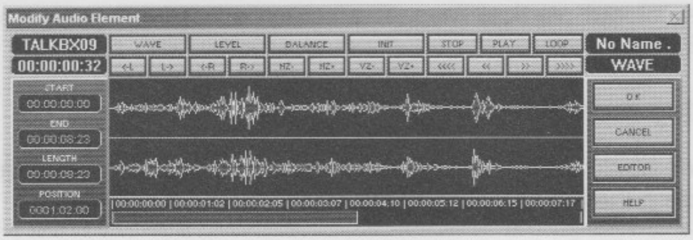
The window is divided into three vertical fields (sections) which each represent one output port. Only those sections will be displayed where the ports have already been defined using Options/MIDI set-up or Options/WAVE set-up, so if you are not using a dual soundcard system and only making use of MIDI port A, then MIDI port B will not be shown.

If you want to change the volume of a port, you have to drag the LEVEL fader up or down accordingly. If you want to turn the volume off completely, click the *OUT* button.

If you want to switch a port to SOLO mode (i.e. only this port can still be heard), click one of the SOLO buttons. The general volumes set in the window can be saved as default volumes by using the command Save set-up in the File menu.

The Wave Editor - Modify Audio Elements

This window opens when you have clicked an audio element in the Tracks window with the *Edit* Tool (magnifying glass icon). It displays the waveform of the WAVE file. You can do various things in this window including defining how large the area to be played is by setting limiters (left/right mouse click).



TALKBX09
00:00:00:32
No Name .
WAVE

START 00:00:00:00
END 00:00:08:23
LENGTH 00:00:08:23
POSITION 0001:02:00

Limiters

The limiters are set with the mouse. To position the left limiter, click the desired position in the WAVE display with the left mouse button. To position the right limiter, do the same thing, but use the right mouse button.

Start reading cursor

There is another way to set the right limiter very precisely: The start reading cursor. It is only set temporarily (i.e. whilst the window is open) and signifies the start position for playback in PLAY or LOOP mode. You then do not have to listen to the entire file before being able to position the right limiter precisely.

The start reading cursor can be set by holding down the [Shift] key and then clicking the desired position in the WAVE display with the left mouse button. The start reading cursor cannot be positioned to the right of the pre-set right limiter. If you try to put it left of the left limiter it will automatically assume the position of the left limiter.

The left limiter is a blue dotted line to start with and the right limiter a white dotted line. Once the start reading cursor has been set, the left limiter will also become a white dotted line. The read cursor (which shows the current position within the WAVE file) is displayed as a continuous, vertical, red line and the start reading cursor in the edit window is a dotted yellow line.

If a sound is selected from the list, the left limiter and the start reading cursor are positioned at the start of the sound and the right limiter at the end of the sound. If you do not enter any other limiters, the WAVE sound will be read completely.

Screen Scroll bar

In the bottom section of the window you will see a blue screen scroll bar. You can change the size of the bar (click the edge of the bar with the mouse and drag) or click to the right of the bar to quickly change its position within the file.

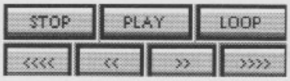
The different cursors (limiters, read cursors) are shown on the screen scroll bar as colored, vertical lines. The screen scroll bar is only enabled in the WAVE mode.

Display modes

The edit window has three display modes and you can switch between them by clicking the appropriate buttons.

WAVE	To display and edit WAVE files in the form of graphics
LEVEL	To display and edit the level sequence for the selected element
BALANCE	To display and edit the balance sequence for the selected element

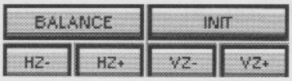
Transport buttons



These buttons allow you to position the screen scroll cursor in the selected element of the window in relation to the left and right limiters.

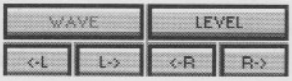
<<<< button	Fast rewind of screen scroll cursor
<<<< button + [Ctrl] key	Fast rewind of waveform in window
>>>> button	Fast forward of screen scroll cursor
>>>> button + [Ctrl] key	Fast forward of waveform in window
<< button	Rewind of screen scroll cursor
<< button + [Ctrl] key	Rewind of waveform in window
>> button	Forward of screen scroll cursor
>> button + [Ctrl] key	Forward of waveform in window

Zoom buttons (WAVE mode)



HZ- button	Reduces the value of the horizontal zoom
HZ+ button	Increases the value of the horizontal zoom
VZ- button	Reduces the value of the vertical zoom
VZ+ button	Increases the value of the vertical zoom

Selection buttons (WAVE mode)



<-L button	Moves the left selection limiter to the left
L-> button	Moves the left selection limiter to the right
<-R button	Moves the right selection limiter to the left
R-> button	Moves the right selection limiter to the right

As the piece is being read in loop mode, you can move these limiters in real-time so that the element "being listened to" can be blocked as on a cassette tape.

Other buttons in the audio elements window

The INIT button allows you to reset the left limiter to the beginning and the right one to the end of the source WAVE file.

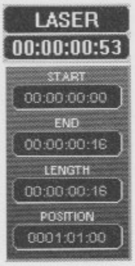
The PLAY button starts the playback of the element between the cursor at the point where reading starts (yellow dotted line in WAVE window) and the right limiter.

The LOOP button starts the continuous playback of the element between the cursor at the point where playback starts (yellow dotted line in WAVE window) and the right limiter.

The STOP button stops playback of the selected element.

Counters for audio elements

The counters give the value in hours / minutes / seconds / hundredth of seconds.



LASER
00:00:00:53
START
00:00:00:00
END
00:00:00:16
LENGTH
00:00:00:16
POSITION
0001:01:00

START	From the left limiter position in the element (absolute time in relation to the start of the waveform).
END	From the right limiter position in the element (absolute time in relation to the start of the waveform). You can change the left and right limiters for the element by clicking the START and END counters. The user then sees a time field.
LENGTH	According to the length of the selection.
POSITION	This counter shows the exact start position of the element in the Tracks window (editing grid). This position can be adjusted by clicking the POSITION field.

To go to the individual positions within the waveform quickly (start, end, element limiters), you need only click the position counter for the mouse cursor. A dialog box will then pop up in which you can enter the target position.

LEVEL and BALANCE mode

If you click the LEVEL button you can edit the volume progression within the audio element (e.g. fade in/out). The BALANCE mode allows you to change the distribution in the stereo picture (left/right).

Using L> and R> you can define the position of so-called modulation points, which represent the corner stones for the level progression for example. These corner points are connected with lines, which can be changed in terms of level or in the angle of rise using buttons 0 to 3.

<-L	Moves the left modulation point to the left
L->	Moves the left modulation point to the right
<-R	Moves the right modulation point to the left
R->	Moves the right modulation point to the right

If the level (shown by a vertical line) is in the middle in BALANCE mode, the balance is equalised. Maximum level means that the right channel is completely open, minimum level means that the left channel is completely open.

<-0	Reduces the volume/balance at start of waveform
0->	Increases the volume/balance at start of waveform
<-1	Reduces the volume/balance at first modulation point
1->	Increases the volume/balance at first modulation point
<-2	Reduces the volume/balance at second modulation point
2->	Increases the volume/balance at second modulation point
<-3	Reduces the volume/balance at end of waveform
3->	Increases the volume/balance at end of waveform

The changes can also be made by holding down the [Shift] key and clicking the left or right mouse button at the same time.

The X-Files

We will now explain the secrets of the MIDI file format. This section is designed for users with professional ambitions.

The MIDI standard

MIDI (Musical Instrument Digital Interface) is a global standard which allows electronic musical instruments to communicate with each other. If a device has a MIDI interface it can exchange musical messages in the form of MIDI signals with other devices using the same interface, regardless of the model or manufacturer's variations.

MIDI connections

Three sorts of connection are used to transmit and receive MIDI signals. Depending on the way your devices are made you can use MIDI cables to connect your various pieces of equipment with each other in different ways.

MIDI IN	Receives data coming from another MIDI device.
MIDI OUT	Transmits data created by the MIDI device.
MIDI THRU	Transmits an exact copy of the data received on MIDI IN to MIDI OUT (the MIDI data more or less "passes through").

Theoretically, any number of MIDI devices can be connected to each other via MIDI THRU. In practice however, only four or five devices at most can be used due to problems with timing and the attenuation of the MIDI signal.

MIDI channels

MIDI uses channels to independently control numerous devices via a single cable. You can imagine MIDI channels to be something like TV channels. The cable coming from the aerial transports several TV messages originating from different programmes, but only the one channel is received, namely the one to which the TV is tuned at that moment.

MIDI provides 16 channels (1 to 16) over which signals can be transmitted. The signals will only be received by those instruments which are tuned in to receive the channel in question.

MIDI signals

The different sorts of data transmitted and received by the MIDI are referred to as MIDI messages. MIDI messages can be roughly divided into two sorts: messages which are transmitted on a special channel (channel messages) and messages where the information applies to a complete MIDI system (system messages).

Channel messages

These signals are used to transport musical actions, e.g. the notes played by you. The majority of MIDI messages belong to this category. The sound generator's settings define how it creates sounds in response to these messages.

Note messages

When you play the keyboard, note messages are transmitted. Each message contains information on the key that has been pressed (the note number) and how hard it was hit (the touch dynamics). When you release a key a similar message is transmitted giving information on which key has been released.

Note number	A number which tells you which note (key) has been pressed or released.
Note on	Message which shows that a note (key) has been pressed.
Note off	Message which shows that a note (key) has been released.
Velocity	A number which shows how hard a note (key) has been pressed.

The notes have been given the numbers 0 to 127, where middle C (C4) is number 60. Each percussion sound is given another number in the rhythmical part. Each note number will produce another percussion sound.

Pitch bend messages

These signals are transmitted when you move the bend wheel or joystick found on nearly all synthesisers (to "bend" the sounds).

After touch messages (key pressure)

These signals are transmitted when you press a key which has already been pressed (on a synthesiser which is capable of forwarding after touch messages). There are two sorts of after touch: after touch per channel (channel key pressure) and polyphonic after touch.

Channel after touch is transmitted as a single value for the whole keyboard and affects a whole channel. All notes which are received by this MIDI channel will react immediately, irrespective of which key you apply the extra pressure to.

The polyphonic after touch is transmitted separately for each key (note). In this instance this only applies to the note that is actually pressed harder.

Program change messages

These messages are used to change instrument sounds. The sound is changed using program numbers 1 to 128.

Controller or control change messages

Control change messages are responsible for the transfer of musical expression, e.g. vibrato, volume, balance, etc. Each function is controlled by means of a control number (0-127). The functions that can be controlled depend on the individual MIDI devices.

System messages

In this category we have the exclusive messages, different message types, which are required for synchronisation, and messages which are required for the actual operation of the MIDI system. System messages are used independently of the MIDI channel number.

System exclusives or (Sysex messages)

Exclusive messages contain data which belongs to a manufacturer's specific family of devices and they are used to transmit sound, configuration and other data.

MIDI implementation charts

MIDI has made it possible for a large number of instruments to communicate with each other. This does not however mean that all sorts of data can be understood by all devices.

If, for example, a keyboard can transmit after touch data, but the sound module connected to the keyboard cannot process this data, the transmitted data will not be effective.

MIDI messages only make sense if they can be transmitted from one device and received by another.

Therefore the instructions for use of every MIDI device always contain a MIDI implementation chart. This provides a list of MIDI functions processed by the device. If you compare the implementation charts of both devices you can see which data can be exchanged between the devices.

As the size of this chart has been standardised you can also place the charts next to each other and even lay them one over the other to be able to compare the receiving device with the transmitting device.

MIDI GS format (general MIDI)

The GS format was created to standardise the way in which a sound module is controlled via MIDI.

What does GS/GM mean?

Up until now the data exchanged by instruments, the type of sound generation and the different controller functions according to the sound module were all very varied. Because of that the user had to have a clear understanding of the way each device worked and how the devices behaved when they were connected to each other.

Sometimes song data, which were created with a certain MIDI sound generator, could not be reproduced as expected on another MIDI sound module. The transmission and receipt of MIDI messages was indeed standardised by the MIDI standard, but the procedures involved in the way the sounds came out were not always compatible.

To solve this problem the manufacturers introduced the GS/GM format (general MIDI), which would standardise the way that the sound modules themselves were controlled using MIDI.

If a device contains a GS standard compatible sound module, a sequence created in GS format on another device can be reproduced by it.

The GS format was designed with future developments in mind and will be included in many devices in the future.

Devices with a GS-compatible sound module can be identified by the letters GS or GM on their front panels.

The essential features of GS

Multi-timbral, 16-voice sound module

The devices in GS format are equipped with a multi-timbral (i.e. several sounds can be created simultaneously), 16-voice sound module that exploits all MIDI channels. You can assign a different instrument to each voice and thus create a complete instrumentation.

A wealth of internally available sounds and ways of exchanging instrument data ((?))

The GS format contains standard instruments (primary sounds) which can be used for numerous pieces of music in the classical, jazz, rock and roll, pop and folk music. It also contains variations of these instruments, which incorporate the individual characteristics of the device as well as any subsequent upgrades.

If a device does not have the desired variation, the instruments can be exchanged.

The GS format also contains numerous drum kits with a variety of percussion sounds that allow you to put together the percussion configuration needed for a specific piece.

24 notes at the same time, guaranteed

The GS format is not associated with any specific sound module and does not therefore limit the number of notes which can be produced at the same time.

Having said that, the GS format guarantees that you can play at least 24 notes at the same time.

Most acoustic sounds consist of only one part (partial) and have been created with particular care to ensure optimal use by any device. Thus they outstrip all of the older sound module methods.

A complete MIDI control set

The GS format is linked to numerous MIDI messages, such as mono mode or portamento, which are essential for an expressive performance. It is also possible to forward the majority of important MIDI commands without using exclusive messages.

Number of parts	16
Minimal polyphony	24 simultaneously playable notes (partials) and more or some equipment.
Choice of instruments	The GS format increases the number of instruments that can be selected under the normal MIDI standard. It does this by combining the "classic" MIDI program change messages and

	controller messages ("bank select"). The receiving device selects a compatible sound if it does not have the variation that has been requested.
Drum configuration	The drum configuration can be changed by using a program change message.
Effects	The GS format contains adjustable hall and chorus effects.

All sounds licensed by

MASTERBITS

Index

A

Active track 21, 30
Adjusting screen colours 105
Audio elements
  Adding effects 29
  Copying 27
  Deleting 28
  Editing 26
  Importing 25
  Positioning 27
Audio recording 32
  Recording from a CD 32
  Using a microphone 32
Auto return 85

C

Changing the tempo 66
Chase control events 84
Combining MIDI tracks 57
Composing 29
Copy 52
Copying a track 59
Cut 49

D

Delete measure 56
Deleting a track 59
Display modes 104

E

Edit tool 104
Editing grid 105
Editing sound names 76
Exporting Audio files 47

G

Grid 116
Glue Tool 104
GM-GS/XG 68
GM-GS/XG effects 80

I

Importing MIDI files 46
Insert empty track 106
Insert measure 55
Intro count 78

J

Juke box 114

K

Keyboard setup 70
Keyboard shortcuts 38

L

Locators 86
Loop 99

M

Merge / paste 53
Metronome 77
MIDI
  Importing a MIDI file 20
  Exporting a MIDI file 46
  Setup 18
MIDI click 77
MIDI connections 125
MIDI controllers 118
MIDI cues 87
MIDI effects 63
MIDI events 110
MIDI filters 68
MIDI mode 68
MIDI ports (A/B) 67
MIDI sound names 75
MIDI standards 128
MIDI thru 100
Mix down 47
Mixing desk 89

O

Opening a sequence 41
Opening patterns 42

P

Panic (all notes off) 101

Q

Quantize 73
Quick Help 35

R

Recording buffer 74
Recording setup 72

S

Save Setup 48
Saving patterns 44
Saving sequences 42
Scissors Tool 104
Score 115
  Printing 116
Screen refresh 84
Selecting a sound 31
Signal monitor 101
Signal processing 60
Solo 90
Sound Card Settings 18
Splitting a composite MIDI track 58
Sysex 78

T

Tempo 30
Timer resolution 85
Touch dynamics 67
Track swapping 60
Track window toolbox 103
Transport buttons 100
Transpose 66

U

Undo 49

V

Virtual keyboard 113

W

Wave editor 119
Wave setup 69

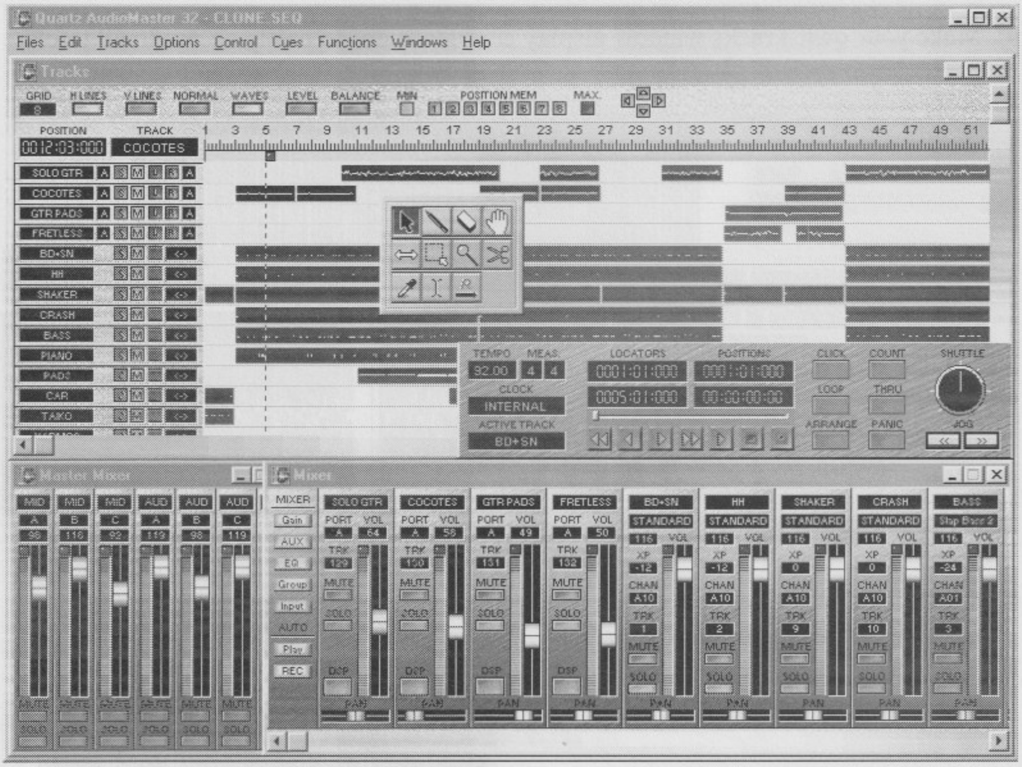
Z

Zoom in / out 104

Upgrade to AudioMaster 32

What extra features does it offer ?

A full 32 bit native application allowing the use of long file names, multi threading and optimised 32 bit coding for running under Windows 95, 98 or NT.

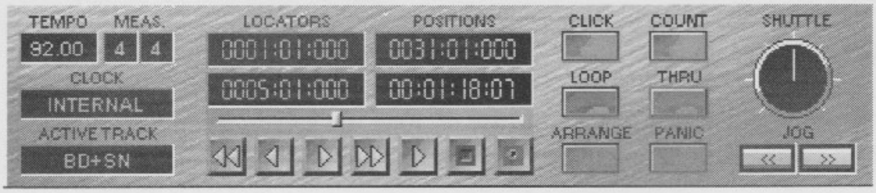


- 128 mono or stereo Audio Tracks; 4 stereo OUT Ports, supports multi-port sound cards
- Selectable working frequency : 32 kHz, 44.1 kHz or 48 kHz

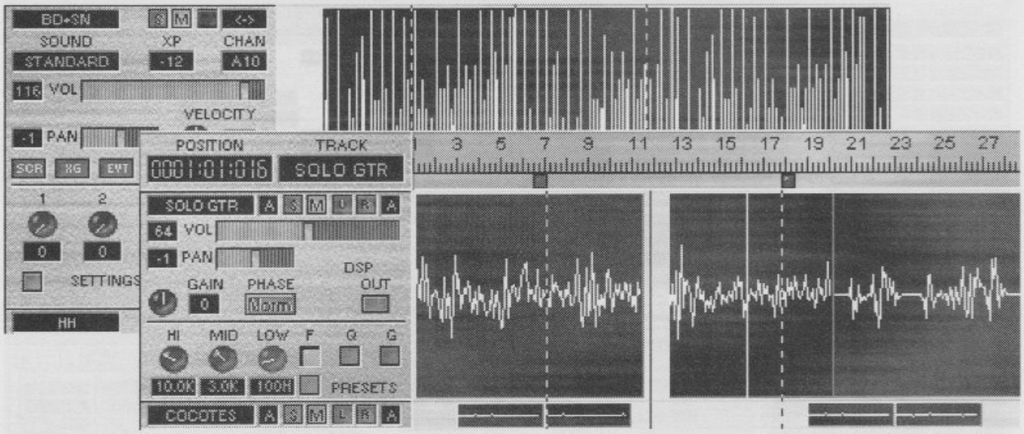
Exclusive "Jog" feature for positionning in the mix by ear like on "reel to reel" recorders

- 128 MIDI tracks; 64 MIDI channels; supports up to 4 MIDI OUT ports
- MIDI resolution up to 960 PPQ, Tempo accuracy .01
- Full synchronization MIDI Clock or SMPTE, Master or Slave
- Tool box which includes additional tools when you right click with the mouse.

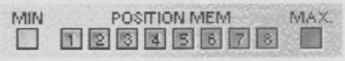
- Overhead toolbars gives rapid access to all the basic functions



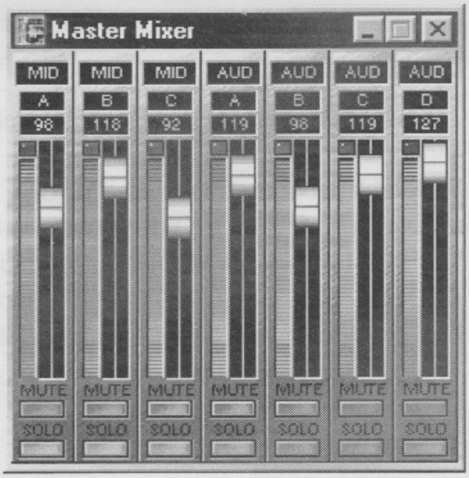
- Make your own Tracks window display configurations to easily access to all tracks parameters



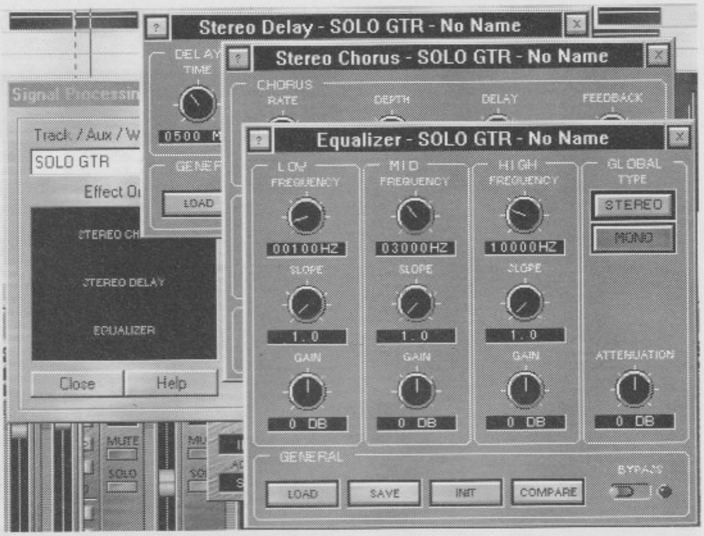
- 8 additional memories spaces can be used to save and retrieve your display presets.



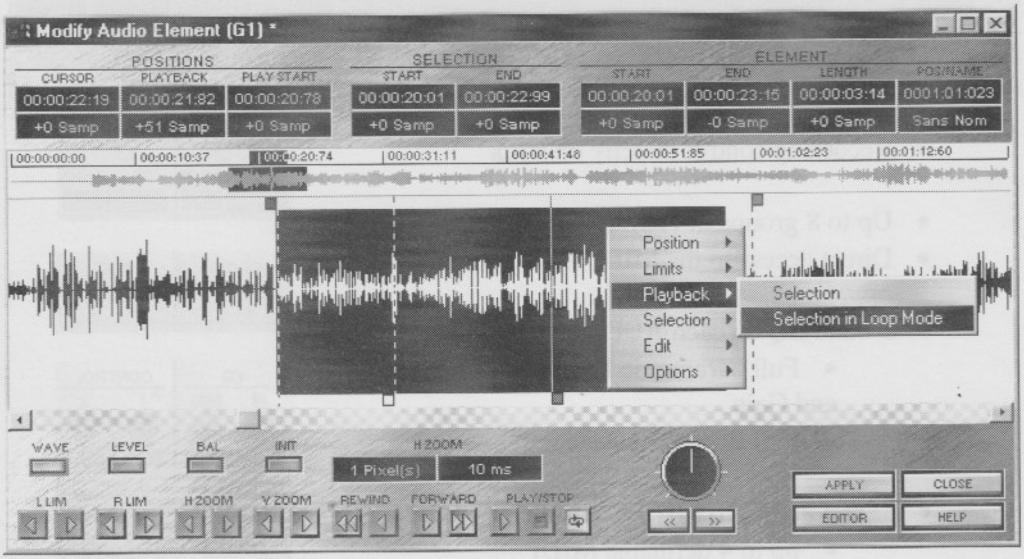
- User definable Master Mixer for Audio and MIDI ports



- Complete Real-Time Audio Effect Generator with access to all tuning parameters; plug-in interface for installing new effects.

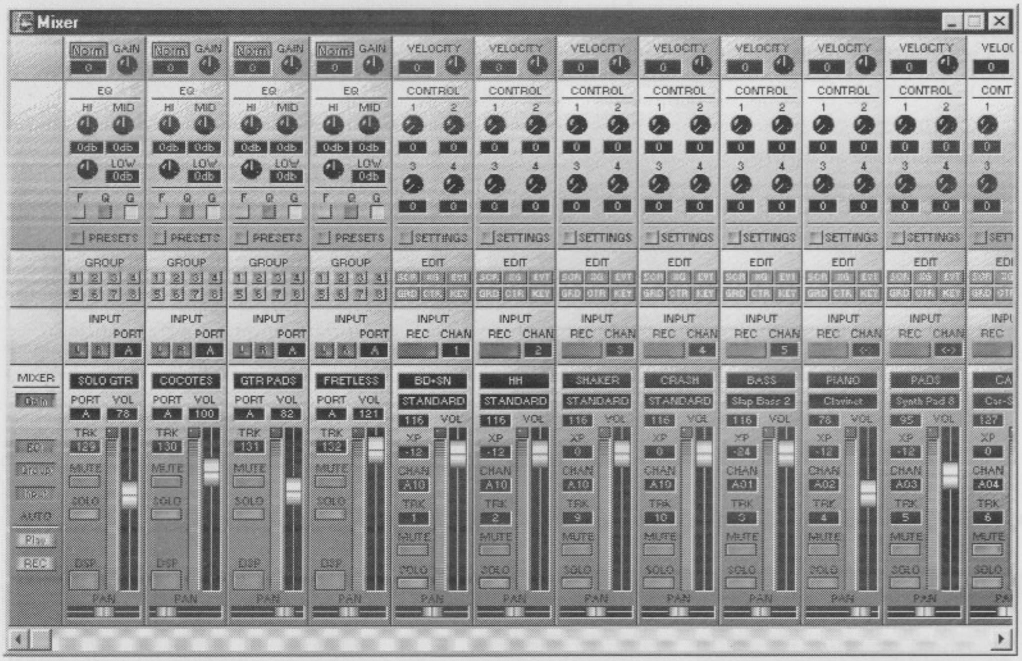


- New wave editor window, a real editor in your Audio Master software

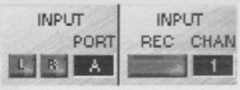


  - Allows you to specify size of the audio element to the accurate length of the sample
  - Includes Exclusive "Jog" feature for positionning in the wave by ear like on "reel to reel" magtapes
  - In addition to the basic editing functions, Audio Master accepts all CANAM effects and plug-ins thanks to a digital signal processing input
  - Edited tracks can be processed to Source wave or previewed in real time

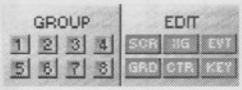
- User definable Console/Mixer includes additional controls on each track



  - Recording control directly on track

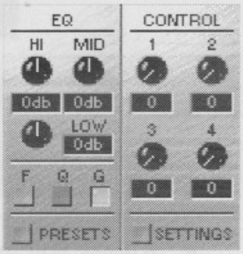


  - Up to 8 groups of AUDIO tracks
  - Direct access to the MIDI editing windows

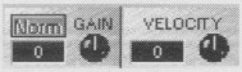


  - 3 band EQ on each AUDIO track
    - Full parametric Frequency, Q and Gain
    - Full Presets management

  - Direct access to MIDI Controllers
    - up to 4 definable MIDI controllers on each MIDI track
    - Full Presets management

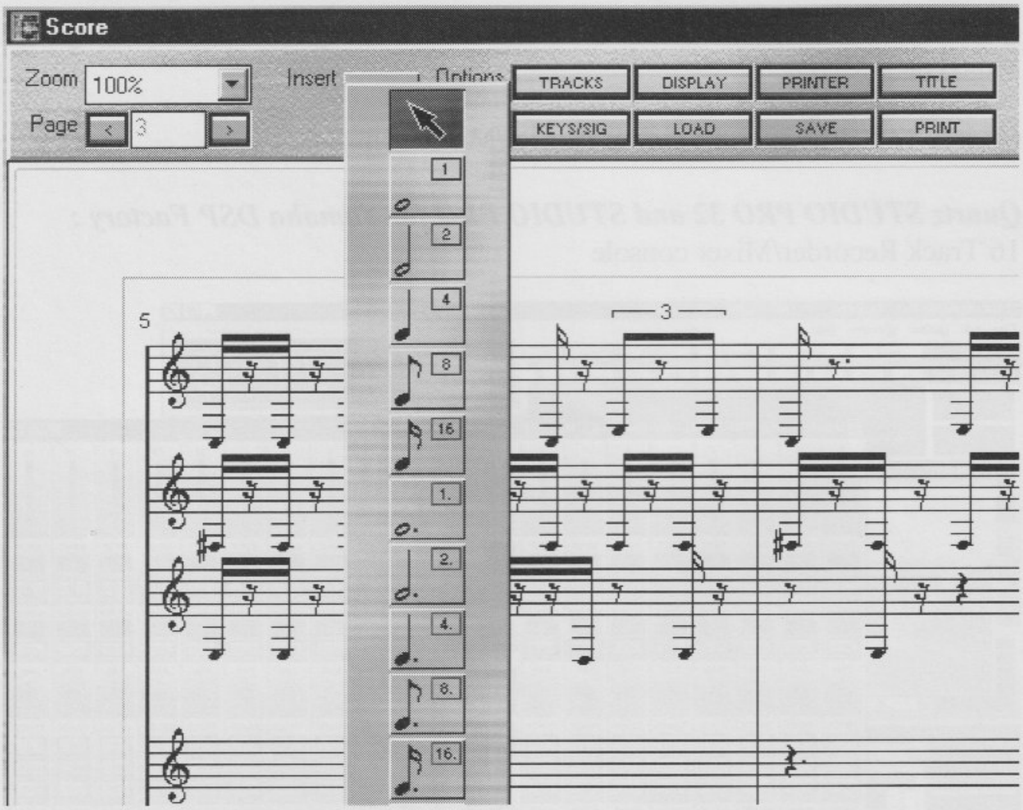


  - Control Gain and Phase on AUDIO, Global Velocity on MIDI at the upper level of the track



- AUTOMATION on Volumes and Balances on MIDI and Audio tracks

- New multi-track MIDI SCORE window



- New ARRANGEMENT window for easy song creation
- New KARAOKE window which accepts .MID and .KAR files, includes a Lyrics editor
- New VIDEO window to synchronize AVI files with your Sequence files

New SYSEX Editor

- Manage your AUDIO recordings from within Audio Master to remove unused files

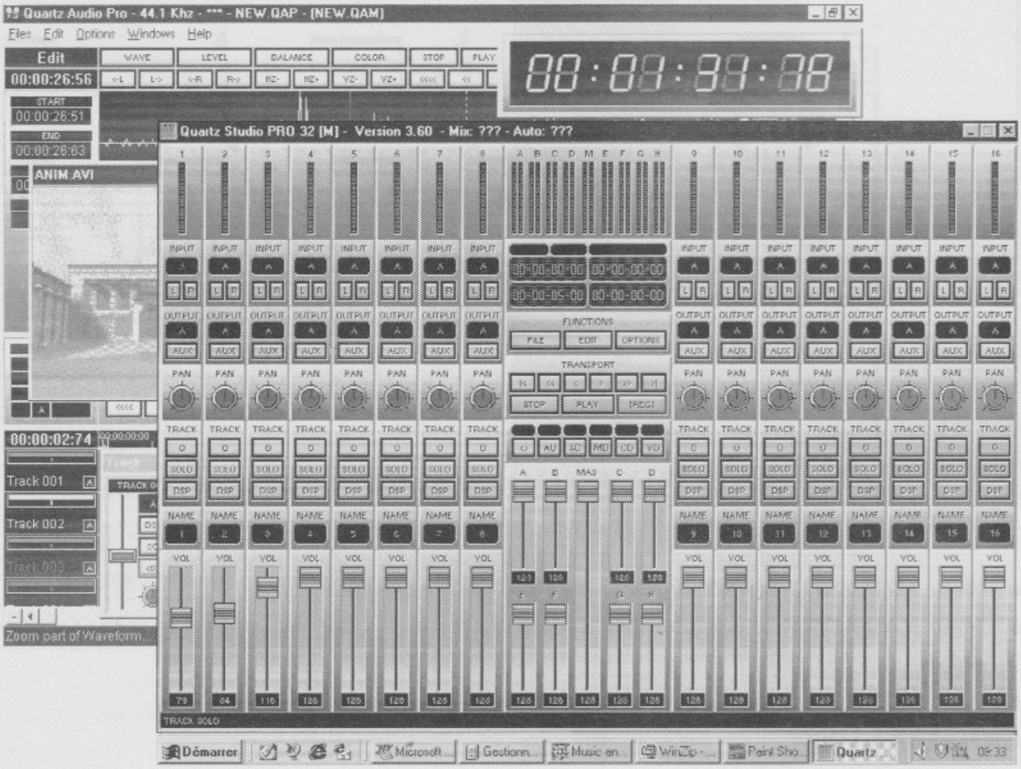
and lots lots more ...

Do you know the other Canam Computers software ?

Quartz AUDIO PRO : Real-Time Professional Digital Audio Editing and MultiTrack Mixing

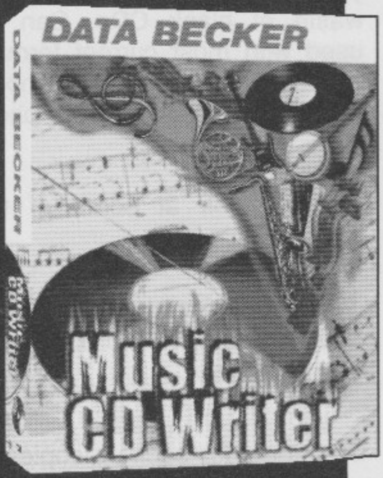
Quartz STUDIO 32 : 8 Track Recorder/Mixer console

Quartz STUDIO PRO 32 and STUDIO PRO for Yamaha DSP Factory :
16 Track Recorder/Mixer console



For any information concerning these products, or to update your Music Center software, please visit our web site : http://www.canam-comp.fr

Take the hiss out of your dad's record collection!



Now you can with Music CD Writer!

Remove distortion, crackle and excessive treble or bass, to enhance a poor recording and resurrect old records and tapes.

Sample your favourite tracks to create a fresh compilation CD.

Great for personal CD players or in-car entertainment.

£19.95

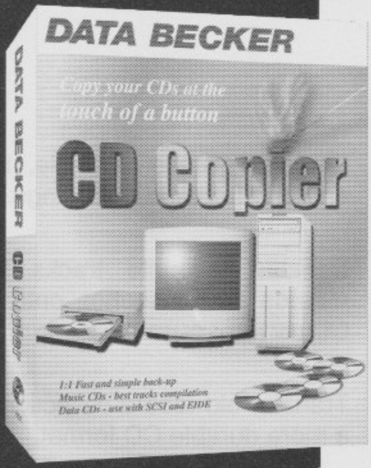
Requires Windows 95

- Remove excessive treble, bass and hiss from old recordings.
- Compile favourite tracks from records and cassettes onto one CD (for personal use only).
- Transfer old record collections to a more durable CD format.
- The Music Archiver lists everything you have copied onto each CD, so that a track-list is displayed when you load the CD. Print out the track-list to label your CDs.
- The 5 band graphic equaliser gives perfect playback of treble, mid range and bass frequencies. Effects can even be added to create your own mix: add echo, reverb and fades to an old favourite, to amuse your friends or to add a bit of atmosphere to your compilation CD.
- For use with EIDE and SCSI CD Writers.

DATA BECKER

(01420) 22707

Copy your CDs at the touch of a button


DATA BECKER
Copy your CDs at the touch of a button
CD Copier
1:1 Fast and simple back-up
Music CDs - best tracks compilation
Data CDs - use with SCSI and EIDE

Whether you are copying music CDs, making back-ups of your software or copying vital files for data-protection, with the CD Copier you can do it all at the touch of a button.

- **Data CD**
- **1:1 Copy**
- **Best of...**

£19.95
Requires Windows 95

With a safe writing procedure for increased security when burning you can avoid the expensive waste of blank CDs. Can be used with most current formats eg ISO, joliet, audio, mixed mode, multisession and photo CDs.

Take a look at some of the benefits:

- 1:1 copies at the press of a button: insert the CD and press the start button.
- Ideal for back-up copies of audio, data and mixed mode CDs (eg. Games).
- Create your own Greatest Hits CDs. Put your favourite tracks from different CDs onto one CD for your own personal compilation. Ideal for parties or personal disk player.
- Simple back-up of data from your hard disk for total data security.
- Automatically sets up your CD Burner and CD ROM drive for optimal copying results.
- For use with SCSI and EIDE CD writer drives.

DATA BECKER
(01420) 22707

▶ 8 CD's for only £19.95

Data Becker's

GIANT SOUND PACK

You'll never be without professional sound samples again!!!

Offers everything a PC musician needs:

Sound libraries with over 10,000 samples for rock/pop, classical music, house, hip hop, dance and techno......

Large collections of vocals and SFX.

Comfortable browser allows very easy access to all sounds.

All sounds in .wav format integration into every PC audio program is easily possible.

Perfect supplement to:

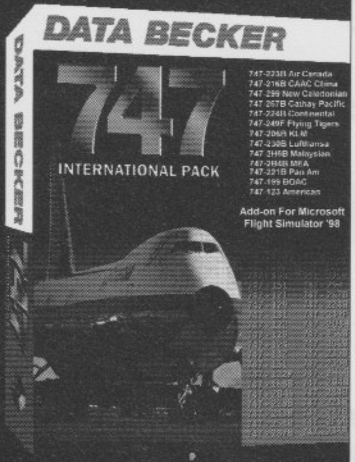
Data Becker's

- **Music Centre**
- **Techno Maker**

and most other music programs!

Data Becker
(01420) 22707

▶ Fly the world's best known aircraft!



66 Jumbo Jets from 30 airlines worldwide

Flight maps for Europe and North America

747
Internatioal
Pack

£19.95

Requires Windows 95/98

747 International Pack

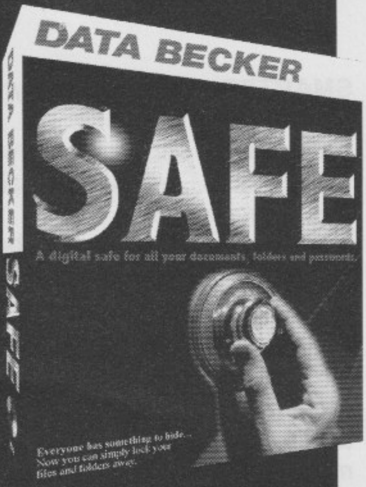
for MS Flight Simulator '98™

- ✈ Enjoy the 1st class modelling and realistic handling of 66 Jumbo Jets from 30 airlines worldwide, with detailed livery and ultra-realistic cockpit panels.
- ✈ New scenery for Delaware, Maryland and Washington with unrivalled detail.
- ✈ Over 100 airports including Andrew's Air Force Base.
- ✈ Geneva scenery created by the Technical Director of Geneva Airport.
- ✈ New easy to use browser when installing the aircraft and scenery.
- ✈ Fully functional landing lights.
- ✈ Realistic 3D undercarriage.

DATA BECKER

(01420) 22707

A digital safe for all your documents, folders and passwords


DATA BECKER
SAFE
A digital safe for all your documents, folders and passwords
Everyone has something to hide...
Now you can simply lock your
files and folders away.
DATA BECKER
SAFE

Everyone has something to hide...

Now you can simply lock your files and folders away.

- No one can get to your files.
- A proven encryption procedure: locks important files, passwords or PIN numbers safely away.
- For single files (eg documents, pictures, graphics, videos) or complete folders.
- With one mouse click encrypted e-mail files can be sent via the Internet.
- Travel safe: protects important files on a disc on your journeys.
- Safe files can be worked on, added or deleted at any time.

An unprotected PC is like an open book. Computers can contain information of a personal nature. Unless files are protected they are available for everyone to read. This can create problems from hackers on the internet, colleagues accidentally browsing your files on the network, or just plain nosy people. With SAFE you can protect anything you want to hide, in a digital safe which can only be opened by your password.

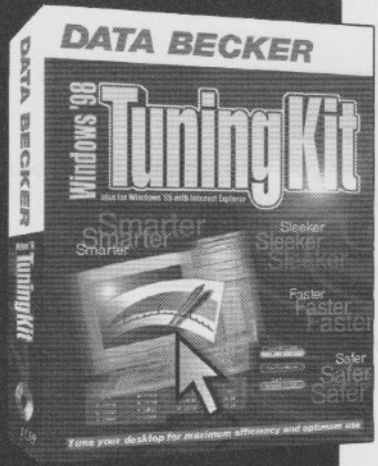
£34.95

Requires Windows 95/98

DATA BECKER

(01420) 22707

Tune your desktop for maximum efficiency and optimum use



Improve password protection – regular reminders when passwords need changing.

End nervousness – decide for yourself if ScanDisk should run after a crash.

- **SMARTER** – personalise your start and finish screens.
  Automatically changes screen savers and wallpaper daily, weekly or monthly.
  Exit Windows from the task bar.
- **SLEEKER** – brilliant! Bring the window to the foreground when the mouse is over it.
  Direct access to all disk drives using a separate toolbar – no more going via My Computer or Explorer.
  Desktop switchboard – with fast start buttons, start a program with a single mouse click.
- **FASTER** – go immediately to the right internet address – with one mouse click go to the last website visited.
  A necessity for every games fan – speed up Voodoo graphics cards.
  Print directly – inserts the installed printer into the "Send To" menu.
- **SAFER** – no chance of spies – stop access with a single mouse click.

£29.95

Requires Windows 95

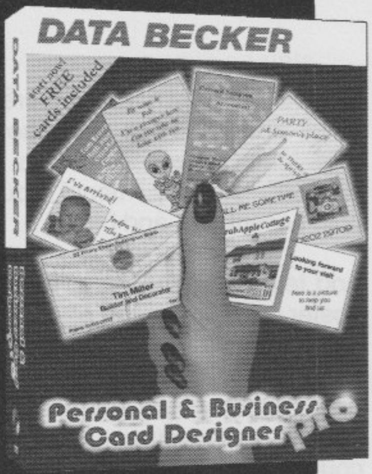
DATA BECKER

(01420) 22707

Who do you want to be today?

First impressions count...

Create the right impression every time



So easy to use:

TrueColor fonts supplied to give your cards a professional appearance.

Scan in your own logos and images for an individual and professional look.

New photo backgrounds for a stylish card your contacts will remember.

Bring your cards up to date. Email and web site addresses within the templates.

£19.95

Requires Windows 95/NT

New Features for the Professional look:

Personal and Business Card Designer Pro gets your message across effectively and attractively. The 1,222 templates help you to create the ideal card for every occasion. Give your business contact a card with a personal touch.

Over 2,500 photo quality pictures to brighten up your designs.

The new folding card design opens up new opportunities for promoting yourself or a special event. Use the back page to display a map to your venue, for example, using the freehand drawing tools within the program.

Mix and match from the thousands of templates, pictures, fonts and logos or design your own unique cards.

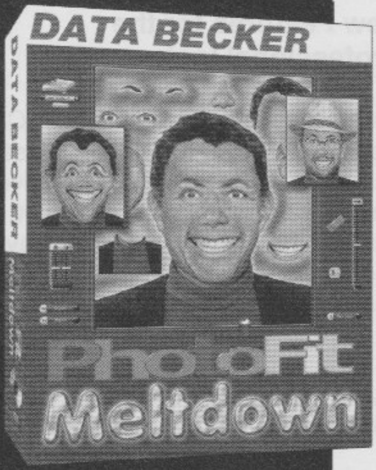
1,000 clipart designs: ideal for the children or to give your cards a humorous touch.

Double-sided and folding cards are the ideal template for club membership or ID cards.

DATA BECKER

(01420) 22707

Now you can re-arrange your boss's face and keep your job!



CREATE FACES HAVE FUN WITH PHOTOS

- Over 40 blank faces
- 700 facial elements, including hairstyles, eyes, ears, noses etc
- Import graphics (jpeg, bmp, pcx, pcd, tga)
- Export graphics (jpeg, bmp, pcx,tga)

£19.95
Requires Windows 95

Photofit Meltdown lets you create faces and have fun with photos. Use the advanced tools to squash, stretch, mould, push, pull, accentuate and blend.

Add text and print out a "wanted" poster.

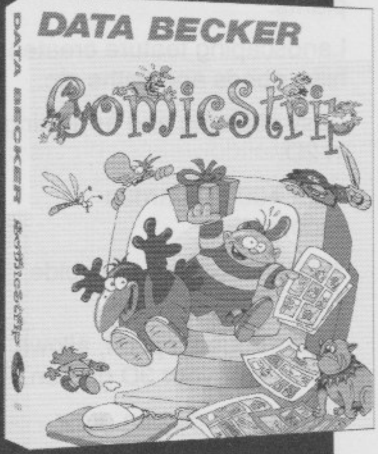
Have you ever wondered how a new haircut would suit your face shape and whether or not you could have a beard or wear glasses? Can you imagine what your face would look like with a different nose?

There are 700 additional elements, such as hair, eyes, ears, noses, mouths, spectacles, beards, hats and clothes which simply drag onto your scanned portrait.

(01420) 22707

Another ***DATA BECKER***
FUN product

Get your message across in a comic way!

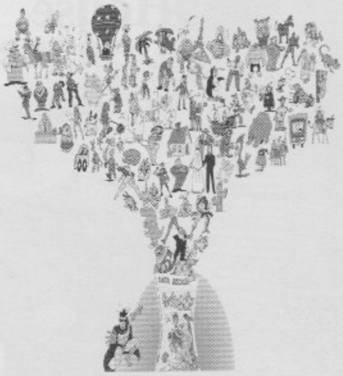


- Pop up menus for easy access to functions
- Great fun – easy to use
- 1,100 graphical objects to create your own comics
- 50 completed comics to inspire you
- Exports as a JPEG or BMP
- Imports JPEGs, BMP or Windows Metafiles
- Generates HTML format to use on the Internet
- Simply "drag & drop" characters and speech bubbles into the scenes

ComicStrip allows you to create a comic for any occasion. Get across serious messages in a fun way, liven up your web site, make a birthday greeting card special or jazz up the office newsletter.

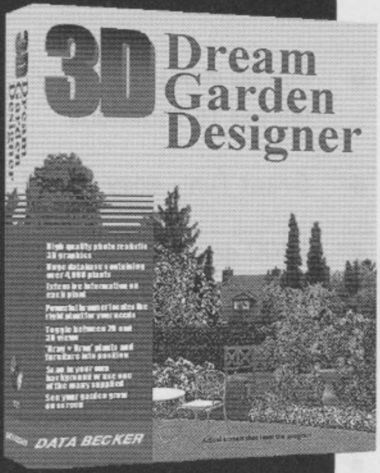
(01420) 22707

£19.95
Requires Windows 95/NT



Another DATA BECKER FUN product

See how your Dream Garden grows:



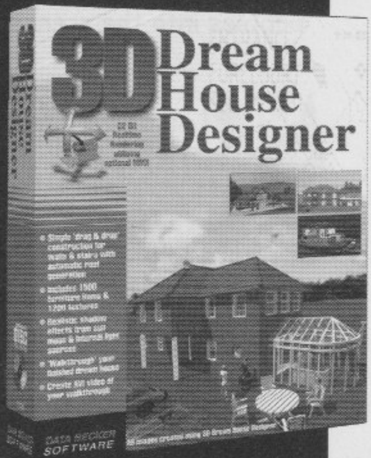
- Encyclopaedia of 4500 plants.
- Landscaping feature creates hills, ponds and paths etc.
- Easy planning and furnishing in 2D.
- Over 400 3D garden accessories.
- 3500 photographs to guide your choice of plants.
- 'Walkthrough' option, allows you to tour your 3D garden.
- Watch your garden grow.

£29.95

Requires Windows 95/NT

(01420) 22707

Create Photo - Realistic Interior and Exterior designs quickly and easily

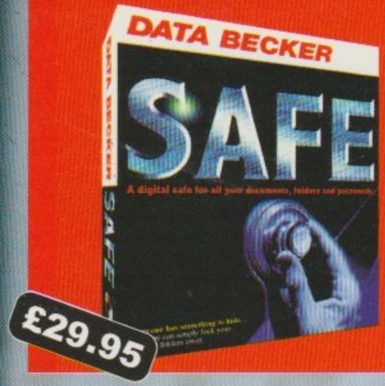


- Draw 2D plans easily then automatically convert to photo-realistic 3D buildings.
- Furnish using 1500 3D objects, or commission your own furniture items.
- Add wallpaper, flooring and brickwork from 1200 textures.
- Photo-realistic shadows and reflections created from internal lights.
- Scan in your own plot of land.
- 'Walkthrough' your 3D home and save as an AVI on your PC.

£59.95

Requires Windows 95/NT

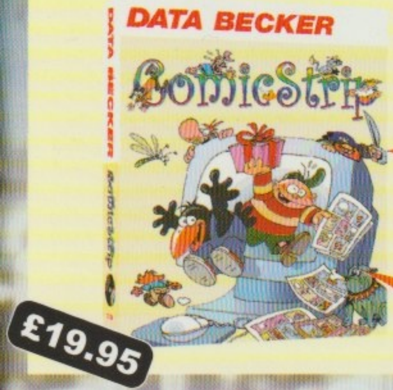
Now includes FREE Interior Design Tutorial.


DATA BECKER
SAFE
A digital safe for all your documents, folders and passwords
£29.95

Everyone has something to hide...

An unprotected PC is like an open book. Unless files are protected they are available to anyone. This can create problems from hackers on the internet, colleagues accidentally browsing your files on the network, or just plain nosy people. With SAFE you can protect anything you want to hide, in a digital safe which can only be opened by your password.

- no one can get to your files
- a proven encryption procedure locks files, passwords or PIN nos.
- encrypted e-mail files can be sent via the internet
- travel safe - protects files on disc while in transit
- SAFE files can be worked on, added or deleted at any time



There is always a comic side to life!

create cards & wrapping paper

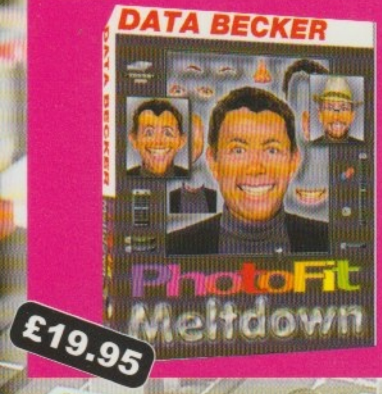
add some fun to the office newsletter

- Design and print your own comics using 1100 objects, characters, backgrounds etc.
- Plenty of layouts to fit your story.
- 50 example comics to feed your imagination.
- Add your comic to your web page or e-mail it to your friends.
- Import your own pictures into the action.
- Compatible with photo-editing software.

jazz up your training material

put some colour into your website

send a CV with a difference



Now you can re-arrange your boss's face AND keep your job!

Photofit Meltdown lets you create faces and have fun with photos. Use the advanced tools to squash, stretch, mould, push, pull, accentuate and blend. Add text and print out a "wanted" poster or rearrange the features of celebrities!
Have you ever wondered how a new haircut would suit your face shape and whether or not you could have a beard or wear glasses? Can you imagine what your face would look like with a different nose? There are 700 additional elements such as hair, eyes, ears, noses, mouths, spectacles, beards, hats and clothes which simply drag onto your scanned picture. Give yourself and your friends a free make-over!

Take the hiss out of your dad's record collection!

Remove distortion, crackle and excessive treble or bass, to enhance a poor recording and resurrect old records and tapes. Sample your favourite tracks to create a fresh compilation CD. Great for personal CD players or in-car entertainment. The 5 band graphic equaliser gives perfect playback of treble, mid range and bass frequencies. Effects can even be added to create your own mix: add echo, reverb and fades to an old favourite to amuse your friends, or to add a bit of atmosphere to your compilation CD.